bluesign® CRITERIA for production sites

Rating matrix - Manufacturer

Version 1.0 | 2020-03

The rating matrix -manufacturer specifies all parameters which characterize the performance levels of a manufacturer production site. The document at hand is to be seen in the context of *bluesign® CRITERIA for production sites – Annex: Rating criteria for production sites*.

Contents

1   Management System

Foundational	Developing	Progressive	Aspirational
Legal Compliance Management			
■ Relevant legal documents (licenses, permits, regulations with subject to environment, OH&S and consumer safety) at hand ■ Site is free from prosecution by the regulators	■ Process for monitoring the validity of permits/licenses in place ■ Responsible persons are equipped with appropriate documents ■ Overview of valid regulations/licenses/permits and consequential actions is existent	■ Company has a system of tracking changes in relevant regulations	■ Document management is part of certified management system
Quality Management System			
Responsible person(s)			
■ Responsible person for Quality Management defined ■ Responsible persons have adequate skills and knowledge	■ Tasks and responsibilities clearly defined and assigned (job description, organizational chart) ■ Directly accountable to senior management; with adequate authorization (reflected in the organizational chart)	■ Demonstrable experience with significant knowledge and skills (e.g. training documents, certificates at hand)	■ Exemplary expert in specific field (e.g. member of external expert groups; more than 5 years' experience in industry branch; continuing education)
System			
■ Quality policy established ■ SOPs for important processes at hand (purchasing, process control, chemicals management, quality tests, test equipment, etc.)	■ Target setting/review of quality targets ■ Program with measures, schedule, responsibilities and budget given ■ Approach is visible in company (postings of statistics, employees are aware of SOPs)	■ Management System (according to ISO 9001 or adequate) is established, implemented and maintained (system is not only a paper tiger) ■ Non-conformity reports given ■ Follow-up actions in case of non-conformities	■ Third party certificate available and up-to-date ■ No major non-conformities ■ Certification is existent for more than 3 years

Foundational	Developing	Progressive	Aspirational
Process Management			
▪ Process management allows proper production (high quality of products, environmental and OH&S aspects under control)	▪ Relevant parameters, e.g. running speed, temperature, pressure prescribed in SOPs or by machine control ▪ Routings and recipes clearly defined and followed	▪ Continuous improvement (e.g. changes in recipes and routings; trials to check optimization potentials) ▪ Regular calibration for scales, measuring- and dosing units	▪ Demonstrable success to improve environmental/OH&S and quality performance by improvements regarding process management
Traceability			
▪ Product name and suppliers of inputs traceable	▪ On request main inputs are traceable on lot basis	▪ Traceability from finished products to raw materials, chemicals and intermediates given on lot basis	▪ Traceability from finished products to raw materials is excellent and supported by IT (e.g. bar code system, ERP); excellent data management
Quality assurance finished products			
▪ Testing only if issues or only on demand	▪ Voluntary testing of finished products ▪ Advices from BLUESIGN followed (e.g. tests in case of solvent coating)	▪ Systematic approach ▪ Testing program established	▪ Demonstrable success regarding quality improvement by quality assurance
Environmental Management System			
Responsible person(s)			
▪ Responsible person for environmental management defined ▪ Responsible persons have adequate skills and knowledge	▪ Tasks and responsibilities clearly defined and assigned (job description, organizational chart) ▪ Directly accountable to the senior management; with adequate authorization (reflected in the organizational chart)	▪ Demonstrable experience with significant knowledge and skills (e.g. training documents, certificates at hand)	▪ Exemplary expert in specific field (e.g. member of external expert groups; more than 5 years' experience in industry branch; continuing education)

Foundational	Developing	Progressive	Aspirational
System			
▪ Environmental policy established and appropriate ▪ Actions to ensure appropriate/improve environmental performance	▪ Target setting/review of targets ▪ Program with measures, schedule, responsibilities and budget given ▪ Approach is visible in company (postings of statistics, employees are informed)	▪ Management System (according to ISO 14001 or adequate) is established, implemented and maintained (system is not only a paper tiger) ▪ Non-conformity reports given ▪ Follow-up actions in case of non-conformities	▪ Third party certificate available and up-to-date ▪ No major non-conformities ▪ Certification is existent for more than 3 years ▪ Success of Management System is demonstrable
OH&S Management System			
Responsible person(s)			
▪ Responsible person for environmental management defined ▪ Responsible persons have adequate skills and knowledge	▪ Tasks and responsibilities clearly defined and assigned (job description, organizational chart) ▪ Directly accountable to the senior management; with adequate authorization (reflected in the organizational chart)	▪ Demonstrable experience with significant knowledge and skills (e.g. trainings, certificates at hand)	▪ Exemplary expert in specific field (e.g. member of external expert groups; more than 5 years' experience in industry branch; continuing education)
System			
▪ OH&S policy established and appropriate ▪ Actions to ensure appropriate/improve OH&S performance	▪ Target setting/review of targets ▪ Program with measures, schedule, responsibilities and budget given ▪ Approach is visible in company (postings of statistics, employees are informed)	▪ Management System (according to OHSAS 18001/ISO 45001 or adequate) is established, implemented and maintained (system is not only a paper tiger) ▪ Non-conformity reports given ▪ Follow-up actions in case of non-conformities	▪ Third party certificate available and up-to-date ▪ No major non-conformities ▪ Certification is existent for more than 3 years ▪ Success of Management System is demonstrable
Housekeeping and Maintenance			
▪ Housekeeping allows appropriate function of processes ▪ Responsibilities defined ▪ Facility is cleaned up ▪ Housekeeping avoids leaks and other unnecessary emissions	▪ Sufficient maintenance of facilities and equipment ▪ Awareness of workers given ▪ Housekeeping is part of training	▪ Housekeeping in general on a good level ▪ Proactive activities (maintenance plans etc.)	▪ Machines and equipment in exemplary condition ▪ Continuing efforts for improvement and enhancing of effectiveness and efficiency of the equipment

2 Input Stream Management

Foundational	Developing	Progressive	Aspirational
Management of raw materials and intermediates			
▪ Responsibility for purchasing defined ▪ Receiving inspection is carried out and data recorded (type and quantity of delivered materials)	▪ Materials are purchased against specifications (e.g. APEO free)	▪ Company acts proactively regarding substitution of environmental friendly/low contaminant materials	▪ Company can demonstrate success in purchasing environmental friendly/low contaminant materials
Supplier evaluation			
▪ Supplier list (supplier name, address, related raw materials) given	▪ Systematic supplier evaluation (incl. rating) at hand ▪ Supplier evaluation can have consequences for supplier selection (e.g. phase out of non-compliance suppliers)	▪ Supplier evaluation is part of management system and management review	▪ Most important suppliers are assessed regularly by company (or bluesign technologies) with respect to EHS performance and raw material qualities
Testing (esp. non bluesign® APPROVED chemicals/raw materials/intermediates)			
▪ Occasional tests for substances (mostly in case of issues)	▪ Increased testing of hot spots ▪ Tests according to bluesign® CRITERIA and advice from BLUESIGN performed	▪ Regular, systematical and pro-active testing established company wide ▪ All relevant impurities considered, first deliveries are checked more in detail, testing depends on supplier rating	▪ Testing is part of management system ▪ Statistics; tests are systematically evaluated for continuous improvement
Chemicals management			
▪ SDS and TDS for all chemical products at hand ▪ Responsibility for purchasing of chemicals defined ▪ Receiving inspection is carried out and data recorded (type and quantity of delivered chemicals)	▪ Non bluesign® approved chemicals are purchased against specifications (e.g. APEO-free, free of toxic azoamines; ZDHC conformity) ▪ For non bluesign® approved chemicals risk assessments are performed before purchasing	▪ Company sets targets for substitution and minimizing of chemicals	▪ Company can demonstrate and communicates success in chemicals management
Share of manufactured bluesign® APPROVED materials (applies only to textile manufacturer)			
▪ ≥5 %	▪ ≥ 25 %	▪ ≥ 50 %	▪ ≥ 75 %

3   Resources

	Foundational	Developing	Progressive	Aspirational
Management				
	■ Single resource saving management measures are applied	■ Target setting/review ■ Program with measures, schedule, responsibilities and budget given	■ Reuse and recycling efforts ■ Own systematic proactive efforts for resource saving (e.g. overall plan for energy and water saving) OR External audits (energy audit, etc.)	■ Resource management is part of the company strategy ■ Success on resource saving can be demonstrated and is communicated (homepage, conferences, environmental report, etc.)
Monitoring				
	■ Most important resource figures known for company level	■ All relevant resource figures (water, energy, chemicals, other raw materials) are continuously recorded and evaluated (at least at company level) ■ Basic KPIs established (e.g. total water consumption, total energy consumption)	■ Comprehensive monitoring (e.g. monitoring exceeds company level (department level, machine level), well documented results; statistics; on-line measurements; detailed and systematic tracking of resource consumptions) ■ More detailed KPIs established ■ Internal/external benchmarking	■ Monitoring is part of the continuous improvement program of the company ■ Production data acquisition includes resource data ■ Yearly management review
Equipment, processes				
	■ Several resource saving measures (e.g. prevention of leaks, thermal insulation, switching of lights, etc.)	■ Important resource saving techniques installed (e.g. heat exchanger, closed loop for cooling water)	■ Systematic investment in resource saving equipment/modifying processes	■ BAT equipment installed

Foundational	Developing	Progressive	Aspirational
Renewable energy			
▪ ≥ 5 %	▪ ≥ 25 %	▪ ≥ 50 %	▪ ≥ 75 %
Water (applies only to textile manufacturer) [l/kg]			
▪ ≤ 250	▪ ≤ 150	▪ ≤ 100	▪ ≤ 75
Energy (applies only to textile manufacturer) [kWh/kg]			
▪ ≤ 25	▪ ≤ 20	▪ ≤ 15	▪ ≤ 10

4 Environment

Foundational	Developing	Progressive	Aspirational
Wastewater			
Management (direct and indirect discharge)			
■ Valid permits for discharge available	■ Single actions to reduce impact (load/volume/toxicity) (e.g. one or more water saving machine(s) installed; low emission processes)	■ Systematic efforts to reduce impact (load/volume/toxicity) ■ Reduction plans; target setting; key figures; installation of new machines/processes considers wastewater impact ■ Treatment of partial streams (if relevant)	■ Wastewater management is part of the company strategy ■ Success on lowering impact can be demonstrated and is communicated to relevant stakeholders (homepage, conferences, environmental report)
Monitoring (in case of indirect discharge without on-site pre-treatment: only monitoring of unpurified wastewater to be considered)			
■ Monitoring follows legal instructions	■ Monitoring exceeds legal instructions (e.g. additional parameters; additional measuring points. Voluntary self-monitoring, shorter measuring intervals; occasional tracking of sources, volumes, loads) ■ Monitoring allows proper operation of WWTP ■ Basic emission register (summary on important emission ports and connected machines)	■ Detailed emission register (all emission ports with typical emission data are listed) ■ Also part streams monitored ■ Well documented test results; statistics; key figures; on-line measurements	■ Monitoring is part of the **company's continuous** improvement program (e.g. yearly management review) ■ Company can demonstrate that monitoring is used to increase WWTP efficiency and to lower impact

WWTP (on-site treatment; direct discharge and on-site pre-treatment for indirect discharge)			
■ In place and proper operation ■ Appropriate sludge disposal ■ General understanding of wastewater emission loads and also treatment steps with good documentation (e.g. flow chart) available	■ WWTP in good condition; effectiveness monitored and recorded (e.g. good maintenance recognizable; inspections to ensure effectiveness; measurement devices well-kept; WWTP lab with good housekeeping) ■ Incidents recorded ■ Procedures/equipment in place for direct response in case of incidents/irregularities (e.g. scenario for heavy rainfall) ■ Educated staff ■ In case of indirect discharge: good cooperation with external WWTP	■ Wastewater treatment system optimized (e.g. SOPs for operation well-documented; sophisticated WWTP lab; high efficiency for the most important loads; engineers with deep knowledge on WWTP, automatically controlled) ■ Resource aspects considered (energy saving, saving of chemicals)	■ WWTP sets standard for the industry; BAT implemented for wastewater purification; forward looking technique, tailor-made process steps
Discharge parameters (direct discharge)			
■ Legal industry specific limits kept (occasional deviations which are followed by efficient actions can be accepted)	■ BLUESIGN limits kept (Occasional deviations which are followed by efficient actions can be accepted)	■ Discharge figures publicly available (at least the most important figures; homepage, environmental report, internet platform (NGO, governmental))	■ Voluntarily lower and/or additional limit values defined
Discharge parameters (indirect discharge)			
■ Third party WWTP in place (address given) ■ Limits for discharge to third party WWTP kept	■ Principle and discharge limits from third party WWTP known ■ Good contacts to third party WWTP ■ BLUESIGN limits kept at third party WWTP (Occasional deviations which are followed by efficient actions can be accepted)	■ Discharge figures from third party WWTP publicly available	■ Voluntarily lower and/or additional limit values for discharge to third party WWTP defined
Air Emission			
CO_2 footprint [kg CO_2/kg textile] (applies only to textile manufacturer)			
■ ≤ 8	■ ≤ 6	■ ≤ 4	■ ≤ 2

Foundational	Developing	Progressive	Aspirational
Air emission supply units			
Solid fuel			
Emissions Dust [mg/Nm³]			
≤ 80	≤ 60	≤ 40	≤ 20
Emissions NOx [mg/Nm³]			
≤ 600	≤ 450	≤ 300	≤ 150
Emissions SO₂ [mg/Nm³]			
≤ 1400	≤ 1050	≤ 700	≤ 350
Liquid fuel			
Emissions Dust [mg/Nm³]			
≤ 125	≤ 100	≤ 75	≤ 50
Emissions NOx [mg/Nm³]			
≤ 450	≤ 360	≤ 270	≤ 180
Emissions SO₂ [mg/Nm³]			
≤ 400	≤ 200	≤ 100	≤ 50
Gaseous fuel			
Emissions Dust [mg/Nm³]			
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Emissions NOx [mg/Nm³]			
≤ 250	≤ 200	≤ 150	≤ 100
Emissions SO₂ [mg/Nm³]			
≤ 40	≤ 20	≤ 10	≤ 5
Oxygen reference: solid fuel: 7 %; liquid and gaseous fuel: 3 %. One averaged scoring point per fuel. If more than one type of fuel is used, a weighted total average is calculated. Valid for power generations with a nominal capacity of more than 1 MW			

Foundational	Developing	Progressive	Aspirational
Process emissions			
Management			
■ Valid permits available (general and/or machine specific permits (depends on local legislation))	■ Single actions to reduce impact (volume, odor, particles, VOC, toxic substances) given (e.g. low-emission processes installed; filters installed; change to low emission chemicals; actions to reduce VOC)	■ Systematic efforts to reduce impact (volume, odor, particles, VOC, toxic substances) ■ Reduction plans, target setting, schedules, budget ■ Installation of new machines considers air emission impact	■ Off-gas management is part of the company strategy ■ Success on lowering impact can be demonstrated and is communicated to relevant stakeholders (homepage, conferences, environmental report)
Monitoring			
■ Monitoring follows legal instructions	■ Monitoring exceeds legal instructions (e.g. additional parameters; additional measuring points. Voluntary self-monitoring, shorter measuring intervals) ■ VOC mass balance (if VOC relevant) ■ Basic emission register (summary on important emission ports and connected machines)	■ Comprehensive monitoring (well documented data; mass balance; statistics; key figures; on-line measurements) ■ Detailed emission register (all emission ports with typical emission data are listed)	■ Monitoring is part of the **company's continuous** improvement program ■ Yearly management review; company can demonstrate that monitoring is used to increase off-gas abatement efficiency and to lower impact
Off-gas treatment system			
■ In place ■ Proper operation	■ Cleaning system in good condition (e.g. good maintenance; inspections to ensure effectiveness, measurement devices well-maintained) ■ Educated staff	■ Cleaning system optimized (e.g. SOPs for operation well-documented; high efficiency for the most important loads; engineers with deep knowledge; automatically controlled; procedures in place for direct response in case of incidents/irregularities)	■ Cleaning system sets standard for the industry (BAT; forward looking technique, tailor-made equipment) ■ RTO for VOC relevant companies with significant emission loads

Foundational	Developing	Progressive	Aspirational
Off-gas parameters			
■ Legal industry specific limits kept (occasional deviations which are followed by efficient actions can be accepted)	■ BLUESIGN limits kept (occasional deviations which are followed by efficient actions can be accepted)	■ Discharge figures publicly available (at least the most important figures; homepage, environmental report, internet platform (NGO, governmental))	■ Voluntary lower and/or additional limit values defined
Ozone depleting substances			
■ Company has equipment for potential to contain ozone-depleting substances (ODS) (chillers, air conditioning units, etc.) ■ Relevant permits are available and up to date ■ Legal compliance	■ SOP for maintenance of ODS containing equipment in place ■ Equipment containing ODS is checked regularly to ensure that it is in appropriate working order	■ Targets for substitution of ODS set	■ Demonstrable achievements related to reducing ODS
Environmental noise			
■ No obvious violation of legal requirements ■ No qualified neighborhood complaints in the last 3 years OR Neighborhood complaints are followed by appropriate actions	■ Single measures to prevent high noise levels ■ Occasional sound insulations	■ Systematic efforts and proactive approach to reduce environmental noise (e.g. reduction plans; target setting; noise register)	■ Noise management is part of the company strategy ■ Success on lowering noise level can be demonstrated
Waste Management			
■ Valid permits available ■ Contracts/certificates for disposal companies at hand ■ Disposal companies are qualified/accredited ■ Separation of hazardous waste from non-hazardous waste	■ Separation of all relevant waste types ■ Waste balance for relevant waste types ■ Single actions to reduce waste (e.g. paper, textile, etc. hazardous waste separation, returnable containers, textile waste is reused or recycled by third party)	■ Systematic efforts to reduce waste (including hazardous waste) ■ Detailed waste balance ■ Reduction plan, target setting, pro-active approach ■ Workers well trained on waste separation	■ Waste management is part of the company strategy ■ Environmental policy includes waste reduction aspects ■ Success on lowering impact can be demonstrated and is communicated to relevant stakeholders (homepage, conferences, environmental report)

Foundational	Developing	Progressive	Aspirational
Emissions Soil and Groundwater			
Precautionary measures			
▪ Contamination of soil and ground water is prevented in critical areas by appropriate measures ▪ Pipes, tanks, floors and storage places maintained	▪ Maintenance schedules available ▪ Third party certificates for tank inspections ▪ Protocols for check of floorings, pipes (including underground pipes)	▪ Systematic approach ▪ Proactive measures (storm water plan, firefighting water retention etc.) ▪ No issues in the last 3 years	▪ Systematic approach for prevention of soil and ground water contamination is part of management system ▪ Exemplary, forward-looking approach ▪ Periodical review of measures by management
Historical brownfields			
▪ No legal issue	▪ Brownfield area is existent and known to authorities; actions prescribed by authorities are ongoing OR History of the site is known; brown fields most likely not given	▪ Brownfield area is existent and known to authorities; actions prescribed by authorities are completed OR Brown field status checked with spot checks and if necessary remediation started	▪ Where there are no apparent brownfields, detailed voluntary status reports available as confirmation that there are no contaminations ▪ In case of brownfields known to authorities: remediation exceeds the measures defined by authorities ▪ In case of remediation on voluntary basis: remediation finished and also checked by external expert ▪ Communication to relevant stakeholders

5 Occupational Health & Safety and Emergency Preparedness

Foundational	Developing	Progressive	Aspirational
OH&S Management			
■ Meeting legal requirements ■ No severe incident without an effective and documented follow-up action in the last 3 years ■ Responsibility defined	■ Risk assessments for most important working places given ■ Safety instructions existent; safety signs existent ■ Necessary protective equipment in good order and used ■ Records on work accidents and corrective actions at hand	■ Comprehensive risk assessments with follow-up ■ Employees involved in risk assessments ■ Zero incident target ■ Management is informed annually on issues and improvement (management review) ■ Significant investment in OH&S equipment ■ Pro-active approach (STOP principle: Substitution, Technical measures, Organizational measures, PPE)	■ Certified OH&S management system installed ■ No incident subject to reporting in the last 3 years
Training			
■ Workers have basic knowledge (occasional trainings) ■ New workers receive initial training	■ Regular yearly trainings (training on hazardous materials included) ■ Training and information requirements for specific tasks are clearly defined ■ Subcontracted workers trained ■ On-the-job instruction ■ Refreshment trainings ■ Training records available ■ Workers have profound knowledge	■ Comprehensive training program installed ■ Workers have advanced knowledge ■ Training by experts (internal or external); internal trainers are well-educated	■ Periodical review of training program to ensure that it is up to date and effective; corrective actions ■ Training program and training subject to regular management review
Workplace atmosphere			
■ Legal compliance ■ Measurements at hand (if relevant)	■ BLUESIGN limits for workplace atmosphere are kept	■ Systematic monitoring program installed ■ Single/local preventive measures	■ Precautionary principle as strategy

Foundational	Developing	Progressive	Aspirational
Workplace Noise			
■ No obvious violation of legal requirements ■ Personal hearing protection is provided in relevant areas	■ Complete noise register; consistent marking of relevant noise areas ■ Hearing protection is used properly	■ Occasional measures for noise reduction	■ Systematic approach for active noise protection and reduction (e.g. noise protection considered in purchasing conditions and equipment investments)
Emergency preparedness			
■ Meeting legal requirements ■ Responsibilities defined ■ Several actions (e.g. emergency exits marked, fire extinguisher/hydrants in place, trainings performed, assembly point(s) marked)	■ Systematic approach based on risk assessments ■ Responsible persons named, well-educated and sufficient (e.g. first aiders, fire fighters) ■ Emergency preparedness plan (alarm list with phone numbers, of internal and external responsibilities) ■ Regular and documented trainings (fire, evacuation) ■ Consistent and sufficient pictograms ■ Emergency devices appropriate, sufficient and maintained (e.g. company has knowledge on type of suitable fire extinguisher) ■ Preparedness for severe accidents (for companies where major accidents can happen due to kind and quantity of hazardous materials stored and processed)	■ Employees involved in planning emergency preparedness and response ■ Zero incident target ■ Records on incidents and corrective actions at hand ■ Management is informed annually on issues and improvement (management review) ■ High standard of emergency preparedness assured by adopting a comprehensive approach (that includes external experts and authorities)	■ Emergency preparedness is part of certified OH&S management system and visible in the company

Foundational	Developing	Progressive	Aspirational
Handling and storage of hazardous material			
Management			
- Meeting legal requirements - Actual SDS for all hazardous materials available - No severe incident without an effective and documented follow-up action in the last 3 years	- Risk assessments performed - Hazardous chemicals inventory list established - Storage/handling advices in SDS followed - Toxic and highly toxic chemicals stored in locked areas	Comprehensive storage concept established (including hazardous waste)	- Handling and storage of hazardous materials is part of management system and continuous improvement - Systematic proactive measures - Periodical review to ensure that storage concept is up to date and effective; corrective actions - No incident subject to reporting in the last 3 years
Operations/Equipment			
No obvious risk from operation	- Equipment maintained - Control instruments in good order - Appropriate retention measures - Proper maintenance and marking of storage areas - Pipes clearly marked - All containers with hazardous chemicals are correctly labeled - Regular control of relevant equipment by experts	- Equipment in very good condition - Partly automated filling/dosing or other proactive measures to reduce operational risk	Systematic proactive measures to reduce operational risk

6 Usage Share of bluesign® APPROVED Chemicals

Foundational	Developing	Progressive	Aspirational
Usage share of bluesign® APPROVED chemicals (by item)			
▪ 5 -25 %	▪ > 25 %	▪ > 50 %	▪ > 75 %
Usage share of bluesign® APPROVED chemicals (by volume)			
▪ 5 -25 %	▪ > 25 %	▪ > 50 %	▪ > 75 %

7 Validity

This document comes into effect from 2020-03.

This document is subject to revisions. Details on the revision procedure for regular and unscheduled revisions are compiled in the *bluesign® SYSTEM* document.

Disclaimer

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