Bloom Energy, Inc.

Environmental Health & Safety Management System Manual

Version 5.1

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RECORD OF REVISION

Revision Date	Description	Sections Affected
April 2021	Original Document	All
December 2022	General review and update to manual language. Removal of Appendix 2: EMS Scope. Updated roles and responsibilities for ESG Committee, ESC, Senior Director Environmental Compliance and EHS, and EMS Implementation Team to be more in line with ongoing responsibilities.	All
January 2024	General review and update to manual language. Clarified file naming for EMS documents and listed documents considered to be EMS documents. Change in title for "Senior Director Environmental Compliance and EH&S" to "Vice President, Environment and Regulatory Law."	All
November 2024	Manual updated to incorporate Health and Safety system (merging ISO 14001 and ISO 45001).	All
December 2025	Manual updated to reflect changes in audit calendar and audit categories. Audit categories for safety findings reflect SIF and SIF-p. Audit categories for environmental categories were updated to reflect level of impact language. Corrective action form requirements was updated to only include Major findings.	2.7 and 2.14
February 2026	Manual updated to reflect the suggestions from the India EHSMS audits. Changes included adding visitors under context, general employees under roles and responsibilities, external contractor communication, and reference of Bloom's document control policy.	2.1, 2.2, 2.8, and 2.9
April 2026	Update Manual with new logo	Cover and CAR Form

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LIST OF ACRONYMS AND ABBREVIATIONS

EHSMS	Environmental, Health and Safety Management System
EMS	Environmental Management System
ESG	Environment Social and Governance
ISO	International Organization for Standardization
OHSMS	Occupational Health & Safety Management System
SIF	Serious Injury or Fatality
SIF-p	Serious Injury or Fatality potential
SOP	Standard Operating Procedure

DEFINITIONS

The following section provides definitions of terms used within this Manual specific to Bloom Energy.

Annually—Occurring at least once in each calendar year.

Audit Finding—A statement or indication that describes the results of an audit measured against a defined criterion (e.g., standard or regulation) used to measure the performance of the auditee.

Audits—A formal, systematic evaluation performed on a periodic basis.

Competency—Having the requisite education, training, and/or experience required to perform the specific task or job at hand as required by environmental regulations and best management practices.

Compliance—The adherence to environmental regulations, Bloom Energy policies/requirements, and voluntary compliance obligations made by Bloom Energy.

Compliance Obligations—Legal requirements that an organization must comply with and other requirements that an organization has to or chooses to comply with.

Conformance—The adherence to Environmental Health and Safety Management System (EHSMS) requirements and best management practices set forth by this Manual and other such environmental, health and safety plans.

Continual Improvement—The process of enhancing the facility's EHSMS to achieve improvements in its overall environmental performance in line with its Environmental and Safety Policies.

Corrective Action(s)—Action(s) to eliminate the cause of a noncompliance or incident, and to prevent a recurrence. There can be multiple reasons for a noncompliance status.

Document—Information created to operate its EHS program and EHSMS (e.g., permits, plans, forms, procedures, manuals, equipment specifications/as-builts, training, and/or meeting materials).

Documented Information—Information required to be controlled and maintained by an organization and the medium on which it is contained. Documented information can refer to: (1) Information created for the organization to operate (can be referred to as documents), and (2) evidence of results achieved (can be referred to as records).

EHSMS Audit—A systematic, documented verification process of objectively obtaining and evaluating evidence to determine if the facility's EHSMS conforms to the audit criteria set by Bloom Energy and communicating the results of the process to the Environmental and Social Governance (ESG) Committee.

EHSMS Implementation Team—A subset of the Environmental Health & Safety Steering Committee (EHSSC) made up of Bloom EH&S staff responsible for the day-to-day work involved in developing and implementing the Bloom Energy EHSMS. These individuals are EH&S subject matter experts.

Environment—The surroundings in which the facility operates, including air, water, land, natural resources, flora, fauna, humans, and their interrelation.

Environmental and Social Governance Committee (ESG)—A committee established by Bloom Energy, made up of senior management staff, to oversee and guide ESG efforts.

Environmental Aspect—An element of the facility's activities, products, or services that can interact with the environment, either positively or negatively.

EHS Audit—A systematic, documented process of obtaining and evaluating objective evidence to determine the facility's compliance with applicable EHS requirements.

EHS Compliance Area—Regulatory compliance related areas such as tanks, air quality, and hazardous waste, lock out/tag out that Bloom Energy must ensure compliance with requirements in laws, regulations, codes, and permits.

Environmental Impact—Any change to the environment, whether adverse or beneficial, wholly, or partially resulting from the facility's activities, products, or services.

Environmental Incident—An immediate release of a contaminant into the environment causing nonconformance to a best management practice or noncompliance with laws and regulations.

Environmental Objective—An overall environmental goal arising from the Environmental Policy that the organization sets itself to achieve, and which is quantified where practicable.

EHS Performance—Measurable results of the facility's EHSMS that are related to its Environmental or Safety Policy, its Environmental Aspects, Hazards, and/or its Environmental or Safety Objectives and Targets. This includes the extent of releases of regulated and unregulated substances and materials to the environment and uses of raw materials and energy.

Environmental Policy—A document signed by the Chief Executive Officer that states Bloom Energy Environmental Commitments.

Environmental Program (Action Plan)—Action plans provide the steps to be taken to achieve the Environmental Objectives.

Environmental Risk—The degree of probability that an organization will cause, under normal, abnormal, or emergency conditions, damage to the environment.

Environmental Health & Safety Steering Committee (EHSSC)—A cross-functional team of Bloom Energy staff responsible for advising and guiding the development and implementation of the Bloom Energy EHSMS.

EHS Training—That training necessary to meet regulatory, facility, and Bloom Energy EHS requirements. In addition, it includes training to educate employees on procedures related to the control of significant Environmental Aspects and Impacts, identified hazards and associated risks and opportunities, and the setting and achieving of Environmental and Health & Safety Objectives and Action Plans.

External Issue—Issues that are external to an organization that are relevant to its purpose and that affect its ability to achieve the intended outcomes of its EHSMS.

Hazard—A source or situation with a potential to cause injury and ill health.

Hazard Identification—The process of examining each work area and task to identify hazards inherent to work.

Hazard Identification (ID) Register—A formal record that captures all known hazards and potential risks to be assessed.

Hierarchy of Controls—A system used to prioritize possible interventions to minimize or eliminate exposure to hazards.

Incident—Occurrences(s) arising out of our in the course of work that could or does result in injury and ill health.

Inspection—An informal systematic evaluation performed on a regular basis.

Interested Party—Person or group concerned or affected by EHS performance of an organization.

Internal Compliance Audit—An audit that evaluates the fulfilment of mandatory EHS requirements conducted by the organization itself, or by an external party on its behalf.

Internal EHSMS Audit—The systematic and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the EHSMS audit criteria set by the organization are fulfilled.

Internal Issue—Issues that are internal to an organization that are relevant to its purpose and that affect its ability to achieve the intended outcomes of its EHSMS.

Job Safety Analysis—Also known as a Job Hazard Analysis, is a formal, documented process to identify the dangers of specific job tasks to reduce the risk of injury to workers.

Key Environmental Characteristics—Those characteristics of the facility's operations, products, and services that can have a significant impact on the environment.

Legal Requirement—Legal requirements include EHS laws, regulations, ordinances, permit conditions, memoranda of agreement or understanding, consent orders, unilateral orders, or similar commitments or obligations.

Nonconformity—Any failure to meet the requirements of the EHSMS; any deviation from the procedures contained in the EHSMS.

Operational Controls—Specific methods for controlling and managing the activities, processes, products, and services associated with environmental aspects or identified hazards and associated risks.

Opportunity for Improvement (OFI)—It is a statement of fact made by an assessor during an assessment, and substantiated by objective evidence, referring to a weakness or potential deficiency which if not improved may lead to nonconformity in the future.

Pollution Prevention—The use of processes, practices, materials, or products that avoid, reduce, or control pollution. The term includes, but is not limited to, recycling, treatment, process changes, control mechanisms, efficient use of resources, and material substitution.

Record—A document that states results achieved or provides evidence of activities that were performed. Records include audit reports, documentation of a complaint or correspondence, waste manifest, usage log, emissions testing, inspection report, EHS training log, and water sample analysis reports.

Risk Assessment—A formal process to identify potential hazards related to an activity or operation, analyze the level of risk associated with those hazards, and propose controls to reduce the level of risk. The process uses a risk scoring system depending on the severity and likelihood a risk will occur.

Risk Control—Implementation of tools and techniques (using the Hierarchy of Controls) that mitigate or eliminate the risk.

Safety Objective—An overall health and safety goal arising from the Safety Policy that the organization sets itself to achieve, and which is quantified where practicable.

Safety Policy—A document signed by the Chief Executive Officer that states Bloom Energy Occupational Health & Safety Commitments.

Safety Program (Action Plan)—Action plans provide the steps to be taken to achieve the Health & Safety Objectives.

SIF (Serious Injury or Fatality) — An actual event where someone is seriously hurt or dies.

SIF-p (Serious Injury & Fatality Potential) —A precursor, near miss, or minor incident with the potential for a serious outcome if circumstances were slightly different.

Senior Management Review Team—Bloom Energy individuals appointed as senior managers (i.e., Top Management) responsible for evaluating EHSMS progress to ensure Bloom Energy's EHSMS continued suitability and effectiveness and provides recommendations for continual improvement. For Bloom, this is the ESG Committee.

Significant Environmental Aspect—An environmental aspect, which has or can have a significant environmental impact.

Stakeholder (or Interested Party)—An individual or group concerned with, or affected by, Bloom's operations, activities, products, or services that may affect the environment or health and safety of its workers. The term includes, but is not limited to, Bloom Energy employees, the local community, government entities, non-government organizations, tenants, and related parties.

Third-Party (External) Compliance Audit—An audit to evaluate the fulfilment of mandatory environmental regulatory requirements conducted by an independent party where the auditor is free to conduct the audit without being controlled or influenced by others. The auditor must be objective, a condition characterized by the absence of bias, influences, and conflicts of interest that affect or have the potential to compromise audit findings (Source: ASTM International E 2107-06, 3.1.16, .17, and .19). Independence can be demonstrated by the freedom from responsibility for the activity being audited or freedom from bias and conflict of interest (Source*:* ISO 14001:2015, 3.4.1, ISO 45001:2018, 3.32).

Third-Party (External) EHSMS Audit—The systematic, independent, and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the EHSMS audit criteria set by the organization are fulfilled.

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1. INTRODUCTION

1.1 PURPOSE

The purpose of the Bloom Energy, Inc. (Bloom Energy) Environmental, Health & Safety Management System (EHSMS) Manual is to identify and formalize the processes at Bloom Energy in order to achieve proactive environmental, health & safety (EHS) management, pollution prevention, and continual improvement. This EHSMS Manual was written as informed by International Organization for Standardization's (ISO's) *EMS* – 14001:2015(e), and 45001:2018. ISO is the organization for international standards (www.ISO.org). ISO 14001 is the international standard for environmental management systems (EMS), and ISO 45001 is the international standard for occupational health and safety management systems (OHMS). These standards establish the required elements for a successful EMS and OHMS and thereby provides guidance for its development. Bloom Energy combined these two management systems to create one EHSMS management system. References to safety in this manual encompass the ISO 45001 term occupational health and safety.

An ISO-informed EHSMS is an integrated, proactive approach to managing environmental, health & safety (EHS) responsibilities and objectives, ensuring a systematic approach to continual improvement of EHS performance. The EHSMS establishes EHS management as an intrinsic part of Bloom Energy's overall business philosophy and management of operations. The EHSMS includes the organizational structure, planning requirements, roles and responsibilities, processes, procedures, practices, and resources that support development, implementation, achievement, review and maintenance of the Environmental and Safety Policies, the foundations of the EHMS.

1.2 BLOOM ENERGY'S LEADERSHIP AND COMMITMENT

Bloom Energy's Chief Executive Officer and Environmental and Social Governance (ESG) Committee are committed to the EHSMS and have demonstrated their commitment through:

- Taking accountability for the effectiveness of the EHSMS
- Ensuring that the Environmental and Safety Policies are established and compatible with the strategic direction of Bloom Energy
- Ensuring the integration of the EHSMS requirements into the organization's business processes
- Ensuring that the resources needed for the EHSMS are available
- Communicating the importance of effective EHS management and of conforming to the EHSMS requirements
- Ensuring that the EHSMS achieves its intended outcomes
- Directing and supporting persons to contribute to the effectiveness of the EHSMS

- Promoting continual improvement
- Supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility.

As part of the ESG Committee agenda, Bloom Energy's senior management oversees the EHSMS.

1.3 BLOOM ENERGY AND ITS CONTEXT AS AN ORGANIZATION

1.3.1 Identification of Internal and External Issues

Bloom Energy has determined external and internal issues relevant to Bloom Energy's missions and may create challenges with the outcome of the EHSMS. These factors will be considered and appropriately managed when charting the path of the EHSMS in key areas such as during Management Review and in setting Environmental and Safety Objectives and the development of operational controls. Acknowledging the presence of these internal and external factors, Bloom Energy is better equipped to overcome these challenges and implement a successful EHSMS.

Factors external to Bloom Energy include changing EHS regulations, community needs, and economic conditions.

Factors internal to Bloom Energy's include the turnover of personnel and loss of knowledge, political environment, growing awareness of the EHSMS and its objectives within the organization, and development of processes that may not be currently in place.

See Appendix 1 for more detail.

1.3.2 Identification of Needs and Expectations of Interested Parties

Bloom Energy has identified its interested parties (stakeholders) and discussed their general needs and expectations. Primary stakeholders include personnel who work for Bloom Energy as employees or contractors directly hired by Bloom Energy, its customers, and financial investors. Further evaluation of the needs and expectations of interested parties will continue as the EHSMS develops. See Appendix 1 for more detail.

1.4 SCOPE OF THE BLOOM ENERGY EHSMS

After consideration of Bloom Energy's EHSMS context and the scope of authority of Bloom Energy's leadership, the scope of Bloom Energy's EHSMS was determined.

> ***The scope of the Bloom Energy Environmental, Health & Safety Management System includes environmental, health, and safety compliance activities associated with Bloom Energy activities, products, and services conducted by Bloom Energy employees, including those of contractors when directly hired by Bloom Energy. The scope includes all facilities and all customer installations.***

The scope of this EHSMS may change in the future at the discretion of Bloom senior management.

1.5 BLOOM ENERGY EHSMS MANUAL ISSUE AND UPDATE

This Manual is managed in accordance with the Documented Information Procedure. A record of revision is located at the beginning of the document. The most recent version can only be found on the Bloom Energy intranet. Printed versions of this Manual are to be considered uncontrolled and not the current version.

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2. EHSMS PROCEDURES

2.1 ENVIRONMENTAL AND SAFETY POLICIES

2.1.1 Bloom Energy Environmental Policy Statement

Environmental Policy		Bloomenergy
Procedure No.: EHSMS-1 *ISO 14001:2015 Clause 5.2*		
Issued: 3/9/2021	**Effective:** 3/9/2021	**Approved:** 3/9/2021

Bloom Energy's mission is to make clean, reliable, and resilient energy accessible and affordable for everyone in the world. Bloom's mission represents a commitment to a balanced and equitable approach to the stewardship and sustainability of our environment, our safety and economic wellbeing. This mission defines how we conduct our business and how we treat our employees and the customers and communities we serve.

Bloom Energy carries out this policy with the following guiding principles:

- Bloom Energy delivers solutions to its customers that have a positive impact on the environment by significantly reducing GHG emissions, criteria pollutant emissions and water use.

- Consistent with its stated mission and technology, Bloom Energy is committed to managing its business in a manner that protects the environment and minimizes the impact of its manufacturing and operations on air, water, land, and other natural and cultural resources.

To operate consistent with its mission and guiding principles, Bloom Energy will:

- Comply with applicable legal requirements and supplement with other voluntary commitments where it is believed legal requirements are not sufficiently protective of the environment.

- Drive continual improvement by identifying and analyzing risk, setting objectives and targets that drive and measure progress, and documenting actions taken to mitigate risk and impacts associated with operating Bloom's business.

- Reinforce these commitments through periodic leadership reviews and self-assessments that will ensure continual improvement in Bloom's environmental performance.

2.1.1 Document History

Date	Description of Change
3/9/2021	Initial Environmental Policy

2.1.2 Bloom Energy Safety Policy Statement

Safety Policy		Bloomenergy
Procedure No.: EHSMS-1b *ISO 45001:2018 Clause 5.2*		
Issued: 8/22/2024	**Effective:** 8/22/2024	**Approved:** 8/22/2024

Bloom Energy's mission is to make clean, reliable, and resilient energy accessible and affordable for everyone in the world. Bloom's mission represents a commitment to a balanced and equitable approach to the stewardship and sustainability of our environment, our safety and economic wellbeing. This mission defines how we conduct our business and how we treat our employees and the customers and communities we serve.

To operate consistent with its mission, Bloom will:

- Continuously strive to improve its Health and Safety Management System with a primary focus on eliminating hazards, reducing risks, and providing healthy working conditions for employees, contractors, visitors, and the communities in which Bloom works.

- Integrate health and safety objectives into Bloom's performance management system ensuring accountability at all levels.

- Educate, train and support Bloom employees and local communities ensuring they are equipped to identify and report unsafe conditions and hazards in order to maintain a healthy and safe work environment that encourages a "see something, say something" mentality.

- Through effective use of employee engagement and safety committees, regularly communicate, consult with, and foster a culture that empowers employees to identify hazards as well as develop and implement effective control measures.

- Ensure all employees and contractors understand their respective safety-related responsibilities, are accountable for following safe work procedures and for reporting unsafe conditions, acts, and incidents.

- Drive continual improvement by identifying and analyzing risk, setting objectives and targets that measure and drive progress, and documenting actions taken to mitigate risk and impacts associated with operating Bloom's business.

- Meet or exceed the requirements of all applicable health and safety laws and regulations anywhere Bloom works.

2.1.2.1 Document History

Date	Description of Change
8/22/2024	Initial Safety Policy

2.2 RESOURCES, ROLES, RESPONSIBILITY, AND AUTHORITY

Resources, Roles, Responsibility and Authority	Bloomenergy
Procedure No.: EHSMS-2 *ISO 14001:2015 Clauses 5.3 and 7.1* *ISO 45001:2018 Clauses 5.3, 5.4 and 7.1*	

2.2.1 Purpose

This procedure documents the definition, documentation, and communication of resources, roles, responsibilities, and authorities to ensure effective control of the environmental, health and safety (EHS) performance of Bloom Energy.

2.2.2 Responsibility

The Bloom Energy EHS Implementation Team is responsible for reviewing Resources, Roles, Responsibility, and Authority Procedure on at least an annual basis.

Modifications or additions will be reviewed and approved by the Vice President, Environment and Regulatory Law.

2.2.3 Procedure

The Executive Vice President Services, Quality, Reliability and Environment, Health and Safety (EH&S) has been appointed by the Chief Executive Officer (CEO) to have the defined role, responsibility, and authority to ensure that an ISO 14001-informed EMS and ISO-45001 Occupational Safety and Health Management System (OHSMS) is established, implemented, and maintained. The Environmental and Social Governance (ESG) Committee is responsible for reporting to the CEO, as appropriate, on the performance of the Environmental, Health and Safety Management System (EHSMS), including recommendations for improvement. The Vice President, Environment and Regulatory Law chairs the Environmental Health & Safety Steering Committee (EHSSC) and the EHSMS Implementation Team and is responsible for developing and implementing the EHSMS in accordance with the environmental policy, and reporting to the ESG Committee.

The EHSMS implementation team, on at least an annual basis, will review the Resources, Roles, Responsibility, and Authority Procedure for accuracy and completeness, and update, if necessary. The Vice President, Environment and Regulatory Law shall review and approve of changes made by the EHSMS Implementation Team. The EHSSC will have an opportunity to review and comment on updated EHSMS procedures. The ESG Committee will be informed of substantive changes to EHSMS procedures during management review, if necessary. The EHSSC shall evaluate the availability of resources essential to establish, implement, maintain,

and improve the EHSMS. Resources include human resources and specialized skills, organizational infrastructure, technology, and financial resources.

Observations, including recommendations will be presented to the ESG Committee during management review for consideration and a decision or directive for next steps.

EHSMS-related roles and responsibilities will be communicated upon hire, new or changed roles related to the EHSMS, and on a reoccurring basis through EHSMS Awareness communications.

See the EHSMS Roles and Responsibilities Chart at the end of this procedure for a summary chart of EHSMS related roles and responsibilities.

The following subsections outline the roles, responsibility, and authority at Bloom Energy.

2.2.3.1 Chief Executive Officer

- Takes accountability for and assigns resources to the EHSMS
- Signs the Environmental and Safety Policy Statements
- Is aware of Bloom Energy EHS management issues, status, initiatives, performance, and trends
- Promotes continuous improvement in EHS management and performance.

2.2.3.2 Senior Management Review Team

- This is Bloom Energy's ESG Committee
- Accountable for establishing the level and direction of Bloom Energy's EHS performance as defined in the Environmental and Safety Policy statements
- Reviews and approves new or significant modifications to Environmental and Safety Objectives
- Attends the annual EHSMS Management Review and provides feedback and direction as required by the Management Review Procedure, EHSMS-15
- Responsible for reporting to the CEO, as appropriate, on the performance of the EHSMS, including recommendations for improvement
- Ensures nonconformities found during audits are addressed
- Promotes continuous improvement in EHS management and performance.

2.2.3.3 Chief Legal Officer and Corporate Secretary

- Ensures that an ISO 14001 EMS and ISO 45001 OHSMS is established, implemented, and maintained and assigns responsible staff; Bloom is implementing a combined EHSMS
- Ensures that resources are assigned for EHS management and EHSMS
- Serves in a lateral/vertical coordinating function for EHS budgets and staffing allocations
- Maintains awareness of Bloom Energy's EHS management, issues, status, initiatives, performance, and trends
- Promotes EHSMS as part of the ESG Committee and during executive briefings.

2.2.3.4 Vice President, Environment and Regulatory Law (EHSMS Lead)

- Accountable for establishing the level and direction of Bloom Energy's EHS performance as defined in the Environmental and Safety Policy statements
- Facilitates communications; provides oversight, and drives development and implementation of EHSMS at Bloom Energy
- Facilitates assignment of resources for EHS management and EHSMS
- Designates individuals to identify and track regulations and regulatory changes
- Keeps Bloom Energy's ESG Committee aware of EHS management issues, status, initiatives, performance, and trends, at least annually
- Accountable for establishment and maintenance of EHSMS procedures and identification and evaluation of environmental aspects, hazards, and environmental/safety objectives
- Approves EHSMS procedures and other EHSMS elements, as appropriate
- Responsible for review and approval of modifications to the significant environmental aspects
- Ensures that adequate emergency preparedness and response plans relevant to environmental accidents are developed and managed appropriately
- Chairs the EHSSC and EHSMS Implementation Team and determines meeting frequency
- Ensures EHS training and EHSMS awareness programs are established

- Ensures internal EHSMS audits and EHS compliance evaluations are planned and completed

- Ensures third-party compliance audits are planned and completed, if determined to be necessary

- Documents and coordinates corrective actions associated with nonconformances and ensures implementation of appropriate and timely corrective action(s) for any findings resulting from internal EHSMS audits or EHS compliance evaluations, or third-party compliance audits

- Reviewing general and specific EHS significant communications and consulting with or escalating concerns to the Executive VP, Services, Quality, Reliability and EH&S, Legal Department, and Environmental and Social Governance (ESG) Committee as appropriate

- Reviews EHS management progress (monitoring), audit reports, and corrective actions

- Ensuring that EHSMS-related documented information and changes are reviewed and kept secure

- Ensures that the EHSMS Management Review, as required by the Management Review Procedure, EHSMS-15, is prepared for the ESG Committee and attending the management review meeting.

2.2.3.5 Environmental, Health and Safety Steering Committee (EHSSC)

- The EHSSC is a cross-functional team made up of personnel in organizations across Bloom Energy

- The team is chaired by the Vice President, Environment and Regulatory Law, and includes key personnel within Bloom Energy

- Responsible for establishing the level and direction of Bloom Energy's EHSMS performance as defined in the Environmental and Safety Policy statements

- Identifies the EHSMS requirements and ensures the Internal/External Issues and Interested Parties are identified

- Reviews environmental aspects and environmental/safety objectives identified by the EHSMS Implementation Team

- Reviews, and provides comments, on changes to significant environmental aspects

- In consultation with the EHSMS Implementation Team, evaluates the effectiveness of EHS compliance evaluation programs

- Supports the EHSMS Implementation Team with the root cause and development of appropriate corrective action for audit finding(s)

- Reviews and comments on EHSMS procedures and other EHSMS elements as appropriate.

2.2.3.6 EHSMS Implementation Team

- The EHSMS Implementation Team is a subset of the EHSSC. Members are appointed by the Vice President, Environment and Regulatory Law

- Responsible for establishing the level and direction of Bloom's EHS performance as defined in the Environmental and Safety Policy statements, primarily doing the day-to-day work necessary

- Develops, reviews, and updates EHSMS Procedures in consultation with the EHSSC as necessary

- Ensures that environmental aspects, hazards, and environmental/safety objectives are identified and evaluated, action plans are approved, and persons responsible to achieve action plans are assigned

- Responsible for the evaluation of significant aspects in the Environmental Aspects List and the identification of current or need for operation control(s)

- Responsible for audit findings in each of their areas of responsibility, and will determine root cause and develop appropriate corrective action for the finding(s)

- Identifies if new or modified significant aspects should be incorporated into relevant EHS training or, if necessary, there is a need for a new environmental training module

- Develops EHS training and EHSMS awareness programs

- Plans and performs internal EHSMS audits, assists in EHS compliance evaluations

- Informs the EHSSC of potential and ongoing EHS issues, the occurrence of incidents and effects on compliance, and routinely documents this information, as appropriate

- Identifies potential emergencies and potential accidents that can have an impact on the environment and workers

- Address EHS management and EHSMS resource needs and submit EHS budget requests in accordance with Bloom Energy's budget development and submission process, including EHS compliance and corrective action activities

- Coordinates with regulatory agencies regarding identified requirements for permit issuance, consultation, and/or permit modification as assigned by the Vice President, Environment and Regulatory Law.

2.2.3.7 Safety Committees

- Regularly hold meetings
- Maintain communication regarding safety topics
- Communicate resolution status of follow-up items
- Provide a conduit to discuss individual workgroup's safety issues and concerns

2.2.4 General Employees

- Active participation in the EHSMS
- Follow safe working procedures and use appropriate PPE
- Identify and report hazards and suggest improvements
- Ensure actions do not endanger self, others, or environment

2.2.5 Visitors/Contractors

- Abide by all Bloom safety policies as outlined in safety briefings and manual (where applicable)

2.2.6 References

- Bloom Energy Intranet
- ISO 14001:2015(e), Clauses 5.3 and 7.1; ISO 45001:2018, Clauses 5.3, 5.4 and 7.1
- Management Review Procedure, EHSMS-15

2.2.7 Document History

Refer to the EHSMS Manual Record of Revision Table for document history.

Bloom EHSMS Roles and Responsibilities Chart

	Roles and Responsibilities						
Activities	**CEO**	**Senior Management Review Team (ESG Committee)**	**Vice President, Environment and Regulatory Law**	**Environmental, Health & Safety Steering Committee (EHSSC)**	**EHSMS Implementation Team**	**Employee**	**Safety Committees**
Identifying the Environmental, Health and Safety Management System (EHSMS) requirements, Internal/External Issues and Interested Parties	A	A	R	C	C	I	I
Assigning resources for the EHSMS	A	R	R	C	C		
Defining and approving EHSMS framework (e.g., scope, policy, etc.)	A	A	R	R	R	I	C
Establishing the level and direction of EHS performance as defined in the environmental and safety policy statements	I	A	A	R	R	C	C
Develops EHSMS Procedures	I	I	A	C	R	I	I
Approves EHSMS Procedures	I	I	A, R	C	C	I	I
Drives EHSMS implementation (facilitates EHSMS communications, provide oversight)	I	C	A, R	C	C	I	I
Environmental Aspect Identification		I	A, R	C	R	I	I
Hazard Identification						C	C
Environmental and Safety Objective Identification	C	C	A, R	C	R	I	C
Approves Environmental & Safety Objectives	C	A, R	C	C	C	I	I
Chairs EHS Steering Committee and assigns EHSMS Implementation Team Members			A, R				
Training and awareness of personnel	I	I	A, R	C	R		C
Performance monitoring and measurement	I	I	A	R	R	I	C
Performing/Planning the internal audit	I	C	A, R	C	R		
Performing management review	C	A	R	C	C	I	I
Addressing nonconformities, corrective actions, and opportunities for improvement	I	A	R	C	C		C
Promoting Continuous Improvement	A	R	R	C	C	I	C

KEY:
Responsible (R): Doing the Task Accountable (A): Owning the Task Consulted (C): Assisting Informed (I): Aware

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2.3 COMPLIANCE OBLIGATIONS

Compliance Obligations	Bloomenergy
Procedure No.: EHSMS-3 *ISO 14001:2015 Clause 6.1.3; ISO 45001:2018 Clause 6.1.3*	

2.3.1 Purpose

This procedure documents Bloom Energy's process for identifying its compliance obligations and determining how they apply to Bloom Energy's environmental aspects and workplace hazards to ensure compliance.

2.3.2 Responsibility

The Vice President, Environment and Regulatory Law is responsible for designating individuals within Bloom Energy, or outside consultants, to identify and track regulations and regulatory changes. Potential subject areas tracked may include:

Subject Area
Air Quality
Drinking Water
Groundwater
Environmental Management System
Hazardous Materials (e.g., inks, silica)
Hazardous Waste
Non-Hazardous Solid Waste
Aboveground Storage Tanks
Pesticides
Regulated Materials (e.g., asbestos, lead-based paint)
Stormwater
Universal Waste
Wastewater
(Workplace) Hazards

2.3.3 Definitions

Compliance Obligations—Legal requirements that an organization must comply with and other requirements that an organization must or chooses to comply with.

Environmental Aspect—An element of the facility's activities, products, or services that can interact with the environment, either positively or negatively.

Environmental Impact—Any change to the environment, whether adverse or beneficial, in whole or in part, resulting from an organization's activities, products, or services.

Hazard—A source or situation (in the workplace) with a potential to cause injury and/or ill health.

2.3.4 Procedure

The following documents Bloom Energy's procedures for identifying and maintaining compliance with compliance obligations.

2.3.4.1 Identify Compliance Obligations

As described in the Environmental Aspects Procedure EHSMS-4, the EHSMS Implementation Team will work with the EHSSC identify environmental aspects and impacts and assign significance on an annual basis. The EHSMS Implementation Team will also ensure that the identification of new additions or modifications of operations or activities, products, or services are added to the Environmental Aspects List. EHS staff will identify applicable health and safety regulations that apply to work activities within the scope of the EHSMS.

Persons assigned by the Vice President, Environment and Regulatory Law in Section 2.3.2 will communicate to the EHSSC this annual review and new additions or modifications.

The responsible person(s) assigned by the Vice President, Environment and Regulatory Law will:

- Conduct a regulatory applicability review for new additions or modifications and determine if work activities and environmental aspects are regulated or have compliance obligations associated to them at Bloom Energy. Bloom Energy will stay apprised of federal, state, and local environmental regulations through a variety of means, including agency notifications.

- Identify the specific action(s) driven by compliance obligations based on identified aspects.

- Review each of the compliance obligations and identify how it will be managed. This information shall include, as appropriate, applicability of requirement; person(s) or role(s) responsible for compliance; specific equipment or activities that may be affected by requirements; monitoring, recordkeeping, and reporting requirements; and the management of this information within the Bloom Energy intranet.

2.3.4.2 Documentation

The assigned responsible person(s) will compile the details of requirements gathered as part of the effort in Section 2.3.4.1 of this procedure and maintain this information on the Bloom Energy intranet. Depending on the subject area and compliance obligation, compliance plans, permits, and/or applicable procedures may need to be updated with pertinent information.

2.3.4.3 Communicate Updates

The assigned responsible person(s) shall communicate new or modifications to compliance obligations, documentation requirements, and management of those requirements to personnel affected and Bloom Energy personnel or contractors whose work is affected by updates.

2.3.4.4 Government Agencies and Non-Government Organization Involvement

Where appropriate, assigned responsible person(s) will establish relationships, maintain communications with, and share information resulting from these communications with other appropriate Bloom Energy personnel. In addition (and when appropriate), responsible person(s) will participate in regulatory task groups, review and respond to proposed regulations, etc. to ensure that Bloom Energy is current and participating in the regulatory process.

2.3.5 References

- Environmental Aspects Procedure, EHSMS-4
- Bloom Energy EMS Workbook, EHSMS-4-A
- Bloom Energy Intranet
- ISO 14001:2015(e), Clause 6.1.3
- ISO 45001:2018, Clause 6.1.3

2.3.6 Document History

Refer to the EHSMS Manual Record of Revision Table for document history.

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2.4 ENVIRONMENTAL ASPECTS

Environmental Aspects	Bloomenergy
Procedure No.: EHSMS-4 *ISO 14001:2015 Clause 6.1.2*	

2.4.1 Purpose

The purpose of this procedure is to identify the environmental aspects of Bloom Energy's activities, products, and services (APS) within the defined EHSMS scope that can be influenced by Bloom Energy including reasonably foreseeable emergencies and abnormal conditions, planned or new construction, or new or modified activities and services. This procedure will describe how Bloom Energy's EHSMS Implementation Team will determine those aspects that have (or can have) a significant impact on the environment. The list of environmental aspects and significant environmental aspects will serve as a reference for Bloom Energy to ensure that the impacts of the operations within the scope of the EHSMS are accounted for and appropriately controlled.

2.4.2 Responsibility

Bloom Energy employees, including those of contractors when directly hired by Bloom Energy, are to be aware of how their individual job responsibilities may have an impact on the environment.

The EHSMS Implementation Team is responsible for review of the Environmental Aspects Procedure, Environmental Aspects List, and identification of significant environmental aspects on at least an annual basis and should ensure that new APS are incorporated into the environmental aspect list. The EHSMS Implementation Team will communicate updates to the Environmental Health and Safety Steering Committee (EHSSC).

2.4.3 Definitions

Environment—Surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, humans, and their interrelation.

Environmental Aspect—An element of the facility's activities, products, or services that can interact with the environment, either positively or negatively.

Environmental Impact—Any change to the environment, whether adverse or beneficial, wholly, or partially resulting from an organization's activities, products, or services.

Significant Environmental Aspect—An environmental aspect, which has or can have a significant environmental impact.

2.4.4 Procedure

The Bloom Energy EHSMS Implementation Team may use a variety of approaches and sources in developing the lists of relevant APS that have the possibility of interacting with the environment, and environmental aspects and impacts. The process of creating this list will involve a review of documentation, including permits, audit reports, and interviews with and brainstorming by individuals who are familiar with Bloom Energy APS. APS and environmental aspects and impacts will be documented in the *Bloom Energy EMS Workbook* on the Environmental Aspects Tracking tab (the Environmental Aspects List), EHSMS-4-A.

The Environmental Aspects List will be reviewed at least annually by the EHSMS Implementation Team to ensure that the APS within the scope of the EHSMS are captured in the list. Additionally, the list should be updated whenever there are changes, including new or modifications of APS.

2.4.4.1 Identify Activities, Products and Services

The EHSMS Implementation Team maintains the Environmental Aspects List, with the input of the larger EHSSC when needed. The list is organized by facility type and APS as appropriate. APS identification should include reasonably foreseeable emergencies and abnormal conditions, planned or new construction, or new or modification of APS.

2.4.4.2 Identify Environmental Aspects

The EHSMS Implementation Team will identify and document the environmental aspects associated with each APS in the Environmental Aspects List. The assignment of aspects will include consideration to the environmental life cycle of the activity or service within the scope of the EHSMS (e.g., including the beginning with acquisition of a resource, to use of that material, and ending with disposal).

2.4.4.3 Rank Risks and Opportunities

2.4.4.3.1 Assign Impact Severity Value

The EHSMS Implementation Team will assess each environmental aspect for associated risk. Environmental aspects will be assigned one of the following severity levels (I–IV), based on their collective knowledge of the activity, and record it on the Environmental Aspects List:

- I – Minimal threat
- II – May cause minor or short-term environmental, health, safety, property, or business reputation damage
- III – May cause severe environmental, health, safety, property, or business reputation damage
- IV – May cause irreversible or long-term environmental damage, health effects, safety, loss of property or life, or business reputation damage

Impact Severity Value	Description / Examples
I	Minimal or no damage. No potential for fines or NOVs. No complaints. No damage to brand or reputation. Examples: small spill not reaching water or soil and easily cleaned up with absorbent.
II	Minor or short-term damage. Potential for small fines or minor NOVs. Single complaint. Concern from neighborhood community on brand or reputation. Examples: local complaint satisfactorily resolved, non-compliance with internal target, or spill or release on property requiring outside support or reporting.
III	Significant or severe damage. Potential for moderate fines or NOVs. Multiple complaints from a single event or over a short time period. Attention from local or regional media, or increased concern from regional community. Examples: damage to wildlife or plants, discharge/emission exceeding regulatory requirement and reportable to external agency, moderate to large spill on property or minor impacts from spill off-site, multiple inquires or complaints from local community and involvement from local government, improper disposal of desulfurization canisters.
IV	Irreversible or long-term damage. Potential for significant fines or NOVs. Multiple complaints from multiple events or over a long time period. Attention from national media or increased concern from statewide or national level communities. Examples: community complaint with litigation/threat of litigation, death of protected species or injury of person, large spill with significant off-site impacts.

2.4.4.3.2 Assign Probability of Occurrence

Each environmental aspect will be reviewed by the EHSMS Implementation Team and assigned a probability of one of the following (A–D) and recorded on the Environmental Aspects List:

- A – Likely to occur (greater than 90 percent probability)
- B – Probably will occur (60-90 percent probability)
- C – May occur (20-59 percent probability)
- D – Unlikely to occur (less than 20 percent probability)

2.4.4.3.3 Determine Risk Ranking

Once the Environmental Impact Severity and Probability of Occurrence values are entered, a risk score for each environmental aspect is assigned (1–5), based on the Risk Matrix below and is recorded on the Environmental Aspects List.

Bloom Energy Environmental Risk Matrix					
		Likely to occur (>90%)	Probably will occur (60%–90%)	May occur (20%-59%)	Unlikely to occur (<20%)
		A	**B**	**C**	**D**
May cause irreversible or long-term environmental damage, health effects, safety, loss of property or life, or business reputation damage	**IV**	**5**	**5**	**4**	**3**
May cause severe environmental, health, safety, property, or business reputation damage	**III**	**5**	**4**	**3**	**2**
May cause minor or short-term environmental, health, safety, property, or business reputation damage	**II**	**4**	**3**	**2**	**1**
Minimal threat	**I**	**3**	**2**	**1**	**1**

2.4.4.3.4 Determine Opportunities

While reviewing environmental aspects for probability of occurrence, the EHSMS Implementation Team should consider whether they have a potential beneficial impact and if there is an opportunity to enhance beneficial environmental impacts. These should be identified on the Environmental Aspects List.

2.4.4.3.5 Determine Significance

Determine Compliance Obligations—Each environmental aspect is reviewed to determine if there is a regulatory requirement, a specific Bloom Energy policy, or another compliance obligation that applies to Bloom Energy.

Determine Operational Controls—Each environmental aspect will be reviewed to determine if an operational control is in place to prevent an adverse environmental impact (e.g., spill plan or permit).

Determine Residual Risk—Each environmental aspect's environmental impact probability will be reevaluated considering the effectiveness of operational controls, monitoring actions, and completed Environmental Objectives. The environmental impact probability will be recorded on the Environmental Aspects List. Environmental aspects with compliance obligations must be reevaluated. The Bloom Energy EHSMS Implementation Team may choose to reevaluate other environmental aspects.

Determine Significant Environmental Aspects and Assign Them a Priority—The EHSMS Implementation Team should review the Environmental Aspect list and notify the EHSSC of any changes. The EHSMS Implementation Team should review the Residual Risk rankings so that they can prioritize the order (significance) the environmental aspects are to be addressed based on the team's judgment and taking into consideration the residual risk, team interest, and management priorities. If an environmental aspect has a compliance requirement and no operational control, it should be considered a priority environmental aspect, and the team must address it.

NOTE: Ranking will be used by Bloom Energy to establish priorities for Environmental Objectives, and for implementing actions/programs to minimize environmental impacts.

2.4.5 Documentation

The *Bloom Energy EMS Workbook,* EHSMS-4-A, will be stored on the Bloom Energy intranet.

2.4.6 References

- Bloom Energy EMS Workbook, EHSMS-4-A
- Bloom Energy EHS Intranet
- ISO 14001:2015(e), Clause 6.1.2.

2.4.7 Document History

Refer to the EHSMS Manual Record of Revision Table for document history.

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2.5 HAZARD IDENTIFICATION AND RISK ASSESSMENT

Hazard Identification and Risk Assessment	Bloomenergy
Procedure No.: EHSMS-5 *ISO 45001:2018 Clause 6.1.2 and 6.1.4*	

2.5.1 Purpose

This procedure documents the process for the identification of hazards, risk assessment and control to effectively manage workplace and safety hazards within Bloom.

2.5.2 Responsibility

Effective risk management requires the commitment to health and safety from top management and managers as well as the input and involvement of workers.

It is the responsibility of all managers and supervisors to ensure this procedure is fully implemented in their area(s) of control and to consult with workers as part of undertaking the hazard identification, risk assessment and control process. It is the responsibility of workers to cooperate and comply with this procedure. This includes providing effective and constructive information and feedback to aid the risk management process.

The EHSMS Implementation Team has a responsibility to ensure that the areas under the control of Bloom Energy are complying with legal and other requirements. This includes Bloom management understanding the hazards and risks associated with their operations and ensuring that appropriate resources and processes are in place to eliminate or minimize these risks.

2.5.3 Definitions

Compliance Obligations—Legal requirements an organization must comply with and other requirements that an organization must or chooses to comply with.

Hazard—A source or situation with a potential to cause injury and ill health.

Hazard Identification—The process of examining each work area and task to identify hazards inherent to work.

Hazard Identification (ID) Register—A formal record that captures all known hazards and potential risks to be assessed.

Hierarchy of Controls—A system used to prioritize possible interventions to minimize or eliminate exposure to hazards.

Incident—Occurrences(s) arising out of our in the course of work that could or does result in injury and ill health.

Job Safety Analysis—Also known as a Job Hazard Analysis, is a formal, documented process to identify the dangers of specific job tasks to reduce the risk of injury to workers.

Risk Assessment—A formal process to identify potential hazards related to an activity or operation, analyze the level of risk associated with those hazards, and propose controls to reduce the level of risk. The process uses a risk scoring system depending on the severity and likelihood a risk will occur.

Risk Control—Implementation of tools and techniques (using the Hierarchy of Controls) that mitigate or eliminate risk.

Safety Objective—Overall health and safety goals, consistent with the safety policy statement, that an organization sets itself to achieve, and is quantified, where practicable.

Safety Program (Action Plan)—Action plans provide the steps to be taken to achieve the Safety Objectives.

SIF (Serious Injury or Fatality)—An actual event where someone is seriously hurt or dies.

SIF-p (Serious Injury & Fatality Potential —A precursor, near miss, or minor incident with the potential for a serious outcome if circumstances were slightly different.

Workers—Employees and contractors within the scope of the EHSMS.

2.5.4 Procedure

Hazards exist at all organizational levels and are detectable through many sources, including Job Safety Analysis, reporting systems, inspections, audits, brainstorming sessions, and expert judgment. Bloom aims to proactively identify hazards and define their key characteristics before they lead to accidents, incidents, or other safety-related occurrences.

Bloom uses a combination of Job Safety Analysis and risk assessment. Job Safety Analysis helps reduce task-specific risks to workers, while risk assessment helps to lower the overall corporate risk profile. The Job Safety Analysis and risk assessment are formal documented processes.

The five steps to hazard identification and risk assessment are:

- Determine work activities
- Identify hazards
- Identify current risk controls
- Assess the risk
- Specify actions to reduce the risk

Hazard identification and risk assessments are conducted by competent people with practical knowledge of the work activities. Risk assessment is conducted by small teams of individuals who have been trained in the risk assessment methodology and who understand the work activity/task being assessed. The EHSMS Implementation Team will determine the makeup of teams and will participate in them to conduct any assessments.

Bloom maintains the Hazard Identification Register, EHSMS-5A, a continually evolving document that focuses on hazard management activities and communicates risk information throughout the organization. It provides assurances that any hazards identified during OHS management system planning, and operational planning phases are captured and effectively managed. The EHSMS Implementation Team maintains the Register, with the input of the larger EHSSC when needed. The hazards that are listed and evaluated on the register are hazardous categories that may be applicable to all Bloom activities. Individual Bloom facilities may have additional hazard identification and risk assessment practices and tools that drill down to individual work activities and/or tasks specific to their operations.

The EHSMS Implementation Team ensures that the hazard and risk assessment process is repeated annually when site conditions change, or when new operations are added, to prevent unsafe working conditions.

2.5.4.1 Determine Work Activities

The EHSMS Implementation Team will determine and list work activities by considering normal everyday activities as well as non-routine activities. Work activities can be classified by considering:

- geographical areas
- production processes or stages
- combination of geographical areas/production stage

The EHSMS Implementation Team will determine the level at which they will identify work activities for risk assessment such as:

> **Process/Area:** Fabrication
> **Activity:** Welding

In order to identify the associated hazards with a task, risk assessment teams should have an understanding of:

- Duration, frequency
- Scope for hazardous interaction with other activities
- Workers conducting the tasks
- Other workers affected by the task (maintenance, cleaners, contractors)
- Existing procedures relating to execution of the task
- Permit-to work systems in place
- Manufacturer’s instructions (in the case of work equipment)

- Substances/chemicals used
- Weight/size/shape of materials manually handled during the task
- Accident/incident records relating to the task

For certain unplanned tasks, e.g., the repair of a burst pipe, it is unlikely that the task would have been risk assessed using this methodology as its occurrence would not have been anticipated by the risk assessment team. Tasks conducted by contractors should be assessed by the contractor. Unplanned tasks that occur as a result of an incident are assessed under the Bloom Incident and Injury Reporting program.

List identified work activities on the Hazard Identification Register, EHSMS-5A

2.5.4.2 Identify Hazards

Identify the hazards associated with each work activity considering:

- Is there a source of harm?
- Who or what could be harmed? How could the harm occur?

Consider the following physical, chemical, biological and psychological hazards (and others that may apply based on the assessment team's knowledge):

PHYSICAL

- Slippery or uneven ground leading to slips/falls
- Work at heights leading to falls
- Equipment falling from a height causing injury
- Inadequate space, e.g., low headroom, leading to head injury
- Poor ergonomics leading to repetitive strain injuries
- Manual handling leading to back injury
- Moving parts causing trapping /entanglement injuries
- Hot surfaces or substances causing burns, e.g., glue/steam
- Poor housekeeping leading to fire
- Ionizing radiation leading to health effects
- Violence to staff
- Harmful energy, (electricity, pneumatic energy, compressed air, hydraulic energy)
- Noise leading to hearing defects
- Confined spaces with hazardous atmospheres

BIOLOGICAL

- Inhalation, ingestion or contact with bodily fluids causing illness

CHEMICAL

- Inhalation, ingestion, contact with a chemical which causes injury

PSYCHOLOGICAL

- Workplace stress leading to health issues

2.5.4.3 Identify Current Risk Controls

For each identified hazard, existing control measures should be specified on the Hazard Identification Register, EHSMS-5A.

2.5.4.4 Determine the Risk

Risk is determined by estimating the potential severity of harm and the likelihood harm will occur for a given hazard. To estimate the severity of harm, consider:

- Is there SIF-p?
- How the person is likely to be affected?
- What harm will result?

Likelihood (probability) of harm is categorized as below:

Score	Likelihood	Likelihood Rating		
		Description	Percentage	Probability
1	Remote	Could occur only in exceptional circumstances	<0.1%	1 in 1,000
2	Unlikely	Could occur at some time but only in unusual circumstances	1%	1 in 100
3	Likely	Not expected to occur under normal circumstances	10%	1 in 10
4	Highly Likely	Will probably occur in most circumstances	50%	1 in 2
5	Almost Certain	Expected to occur in most circumstances	≥95%	1 in 1

Severity of harm is categorized into the following levels:

Score	Severity	Severity of Risk (Degree of Harm)
1	Negligible	Minor injury not requiring first aid or no apparent injury/adverse outcome; near miss. Returned to full duties.
2	Minor	Temporary minor injury/illness/first aid treatment needed; possible physician referral.
3	Serious	Semi-permanent injury, over 3-day reportable injury. OSHA reportable injury.
4	Major	Major injuries, or long-term incapacity/semi-permanent injury. OSHA reportable. Hospitalization ≥ 3-day absence.
5	Catastrophe	Death or major permanent incapacity. Multiple fatalities or permanent disability. Facilities or equipment destroyed. Loss of permit to operate. Legal investigation is required.

2.5.4.5 Specify Control Measure

Control measures are specified for each hazard along with owners and completion dates. Control measures should reduce the hazard to an acceptable risk level.

The risk ranking tables below should be used in determining the risk level and control measures that should be considered/taken.

Resulting hazards and risks rated as Moderate and Major are considered significant and prioritized for detailed risk assessment to determine and implement appropriate control measures. This information may be used to determine Safety Objectives and Action Plans.

Likelihood of Occurrence	Severity of Risk				
	Negligible	Minor	Serious	Major	Catastrophic
Remote	1	2	3	4	5
Unlikely	2	4	6	8	10
Likely	3	6	9	12	15
Highly Likely	4	8	12	16	20
Almost Certain	5	10	15	20	25

Risk Ranking/Exposure	Risk Ranking/Impact Exposure	
	Control Measures/Actions	**Timeframe**
1 to 4 Minor	This ranking is generally considered as sufficiently low, insignificant and adequately controlled. Continue to review and reduce the risks wherever it is reasonably practicable, as per cost and legal requirements. Monitor risk controls to ensure that they are maintained at their present level or at a lower level of risk that current day-to-day work practices can effectively manage. Ongoing monitoring and management required by workers and line supervisors using routine procedures.	Manage by routine procedures at operational level. Supervisor review required.
5 to 12 Moderate	Develop a Safe System of Work, prepare Job Safety Analysis. Formal risk assessment is required. The risk must be reduced to ALARP (As Low As Reasonably Practicable). Proposed risk controls should be implemented if the resources, costs, time, or effort are in proportion to the benefits that can be potentially achieved. The following process must be applied: 1. Consult hazard register, ensure controls are effectively implemented; 2. Confirm activity, risk assessment and controls with the Supervisor; 3. Seek advice from the H&S Advisors, implement additional controls; 4. Supervisor confirms controls, assess and approve/reject the activity.	Supervisor review required. H&S Manager review required.
15 to 25 Major	Imperative to eliminate or reduce risk to a lower level by the introduction of controls. Formal risk assessment is required. A level of risk that is considered unacceptable regardless of the benefits associated with the activity. Except where there are exceptional reasons or extraordinary circumstances, measures to reduce the risk are essential regardless of the resources, costs, time, or effort required.	Top management approval.

List identified control measures on the Hazard Identification Register, EHSMS-5A.

All hazards that have been assessed are dealt with in order of priority. The most effective risk control options are selected to eliminate or minimize the risks. The hierarchy of controls is used in determining the most effective control measure.

2.5.4.6 Training

Training is given to workers to provide knowledge of:

- Hazards and hazard identification
- Reporting of hazards
- Overview of the risk assessment process
- Hierarchy of Controls

The training provided to individuals is determined by a training needs assessment and may be included in awareness training, Toolbox Talks, and new and general employee orientation. Annually, JSAs are reviewed by the supervisors with all workers.

2.5.4.7 Communication

Effective two-way communication and participation are essential to ensure those responsible for implanting control and those with a vested interest understand the basis on which decisions are made and why particular actions are required. Consultation is required when:

- Risks to health and safety are examined or reviewed.
- Determining measures to eliminate or control risks.
- Introducing or altering procedures for identifying and monitoring risks.
- Changes are proposed to the system of work, or the facility and substances used for work.

If detected by a worker, visitor, or contractor, hazardous conditions and acts are reported to the EHS staff and Supervisors, as applicable. As an example, the Observation Reporting Tool can be used by anyone to report an unsafe condition or observation.

2.5.4.8 Documentation

JSAs, electronic incident reports and the Hazard Identification Register are maintained on Bloom electronic systems.

2.5.5 References

- Bloom Energy Hazard Identification Register, EHSMS-5-A
- Bloom Energy EHS Intranet
- ISO 45001:2018, Clause 6.1.2, Clause 8.1.2

2.5.6 Document History

Refer to the EHSMS Manual Record of Revision Table for document history.

2.6 ENVIRONMENTAL AND SAFETY OBJECTIVES

Environmental and Safety Objectives	Bloomenergy
Procedure No.: EHSMS-6 *ISO 14001:2015 Clause 6.2* *ISO 45001:2018 Clause 6.2*	

2.6.1 Purpose

This procedure documents the process for the management of Environmental and Safety Objectives at relevant functions and levels within Bloom Energy. Environmental Objectives are based on significant environmental aspects, compliance obligations, and consideration of risks and opportunities. Safety Objectives are based on assessment of health and safety risks and opportunities, and compliance obligations.

2.6.2 Responsibility

Bloom Energy employees, including those of contractors directly hired by Bloom Energy, are to be aware of their individual job responsibilities and associated Environmental or Safety Objectives their job responsibilities can impact.

The EHSMS Implementation Team is responsible for development and maintenance of the Environmental and Safety Objectives Procedure. The EHSMS Implementation Team will review Environmental and Safety Objectives on an annual basis, and develop new Objectives, as needed

The EHSMS Implementation Team is responsible for setting Environmental and Safety Objectives at relevant functions and levels within Bloom Energy and for monitoring and reporting progress of those Environmental and Safety Objectives to the Environmental, Health and Safety Steering Committee (EHSSC) and Environmental and Social Governance (ESG) Committee.

The ESG Committee or their designee is responsible for approving new or significant modifications to Environmental and Safety Objectives and related action plans.

2.6.3 Definitions

Compliance Obligations—Legal requirements that an organization must comply with and other requirements that an organization must or chooses to comply with.

Environmental Aspect—An element of the facility's activities, products, or services that can interact with the environment, either positively or negatively.

Environmental Impact—Any change to the environment, whether adverse or beneficial, in whole or in part, resulting from an organization's activities, products, or services.

Environmental Objective—Overall environmental goals, consistent with the environmental policy statement, that an organization sets itself to achieve, and is quantified where practicable.

Environmental or Safety Program (Action Plan)—Action plans provide the steps to be taken to achieve the Environmental or Safety Objectives.

Safety Objective—Overall health and safety goals, consistent with the safety policy statement, that an organization sets itself to achieve, and is quantified where practicable.

Significant Environmental Aspect—An environmental aspect, which has or can have a significant environmental impact.

2.6.4 Procedure

The following documents Bloom Energy's procedures for identifying and managing Environmental and Safety Objectives.

2.6.4.1 Identification and Approval of Environmental and Safety Objectives

The EHSMS Implementation Team will review the significant environmental aspects identified on the Bloom Energy Environmental Aspects List and recommend Environmental Objectives to the EHSSC and ESG Committee to establish priorities for setting Environmental Objectives.

The EHSMS Implementation Team will review the work activities that take place within the scope of the EHSMS and the related hazards and risks and recommend Safety Objectives to the EHSSC and ESG Committee to establish priorities for setting Safety Objectives.

The EHSMS Implementation Team will determine the number of priorities to identify and rank. This ranking will be used to establish priorities for developing Environmental Objectives and for implementing action/environmental or safety programs to minimize or eliminate environmental impacts or workplace hazards.

The EHSMS Implementation Team should prioritize Environmental and Safety Objectives for recommendation to the EHSSC and ESG Committee based on their judgment and taking into consideration the residual risk, team interest, and Bloom Energy's management priorities.

If an environmental aspect has a compliance obligation and no operational control, it should be considered a priority significant environmental aspect, and the team must set an Environmental Objective to address the issue.

The ESG Committee will determine the number of Environmental and Safety Objectives, based on recommendations from the EHSMS Implementation Team that can be managed at one time based upon human and financial resources, and will approve Objectives.

New Environmental Objectives can be developed at any time, but the EHSMS Implementation Team should review their significant environmental aspects and other environmental aspects at

least annually for identification of potential new Environmental Objectives. New Safety Objectives can also be developed at any time, but the EHSMS Implementation Team should review the work activities and associated hazards and risks at least annually for the identification of potential new Safety Objectives.

Following approval, the Environmental Objectives will be documented in the *Bloom Energy EMS Workbook,* EHSMS-4-A. Environmental and Safety Objectives will be stored on the Bloom Energy intranet.

2.6.4.2 Planning Actions to Achieve Objectives

Following approval from the ESG Committee, the EHSMS Implementation Team, with input from the EHSSC as needed, will develop the plan(s) to achieve Objectives.

Objectives and action plans should:

- Be consistent with Bloom Energy business, financial, and operational requirements
- Consider stakeholder concerns, if applicable, when planning the objective

The EHSMS Implementation Team, and/or their designee, will develop programs (action plans) for each Environmental and Safety Objective that list the specific step-by-step description of how the Objective will be achieved. The EHSMS Implementation Team will assign a person(s) to be responsible for leading an action plan.

Action plans will:

- Designate the responsible position or authority for each step listed
- Identify relevant functions and levels of Bloom Energy necessary to complete steps
- Include time for completion of each step

Action plans will be communicated to the EHSSC with an opportunity for feedback.

Action plans will be stored on the Bloom Energy intranet.

2.6.4.3 Monitoring Progress of Objectives

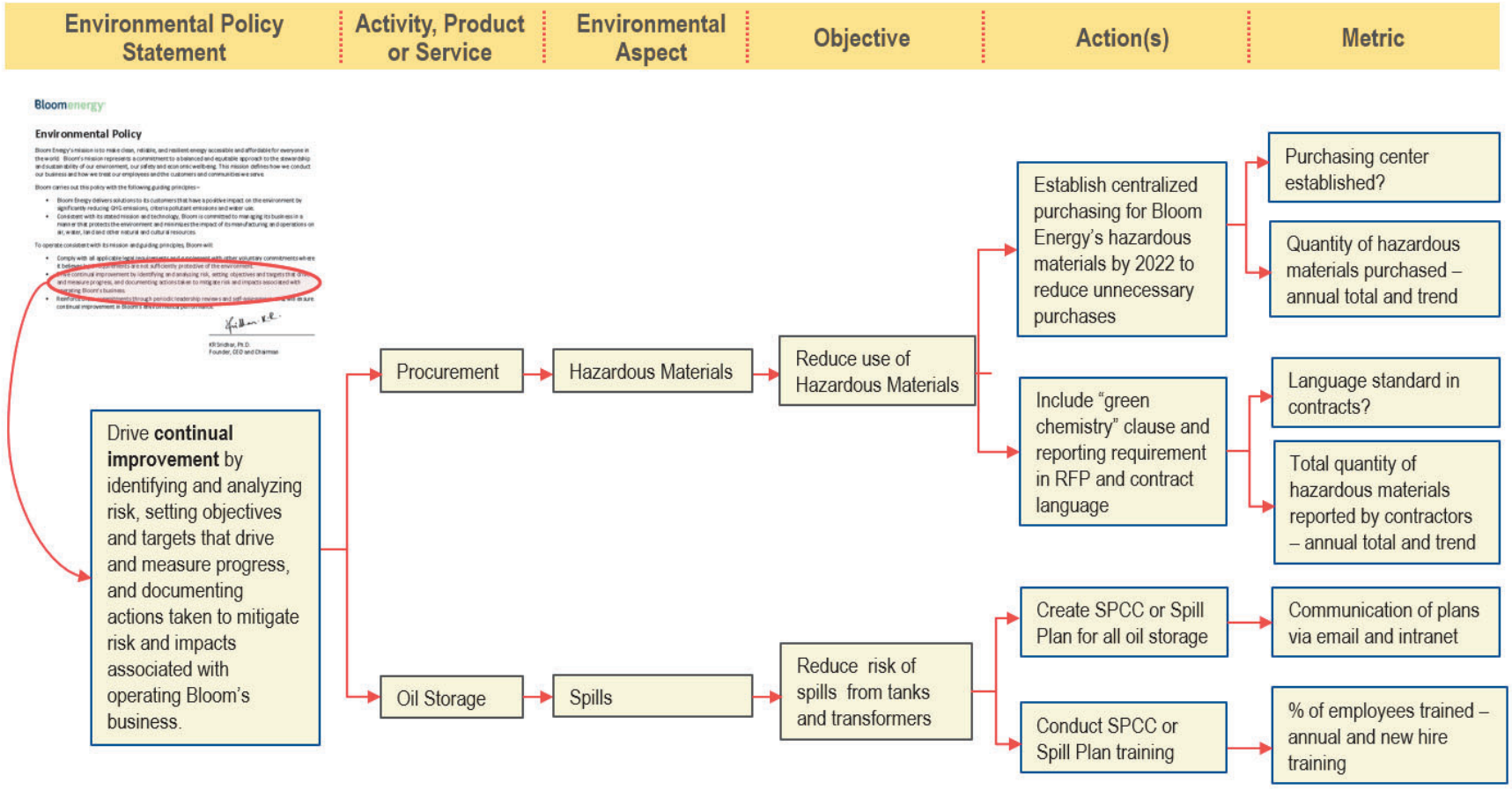
The EHSSC will review progress of Objective(s) as needed, but no less than semi-annually. Person(s) assigned to lead action plans will report to the EHSMS Implementation Team the status of the Objective(s) prior to updating the EHSSC on progress. Modifications to the Objectives or action plans can be identified during these reviews.

The ESG Committee must approve significant modifications, including termination of an Objective or proposal for a new Objective.

The EHSSC and ESG Committee will discuss the Objectives in general, and the progress of Objectives during Management Review. The EHSMS Implementation Team will incorporate changes recommended by the ESG Committee.

Figure 1 illustrates the EMS process connection between Activities/Products/Service through monitoring of Environmental Objectives.

Figure 1 EMS Process



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2.6.5 References

- Environmental Aspects Procedure, EHSMS-4
- Bloom Energy EMS Workbook, EHSMS-4-A
- Hazard Identification and Assessment Procedure, EHSMS-5
- Bloom Energy Hazard Identification Register, EHSMS-5-A
- Bloom Energy EHS Intranet
- ISO 14001:2015(e), Clause 6.2.
- ISO 45001:2018, Clause 6.2.

2.6.6 Document History

Refer to the EHSMS Manual Record of Revision Table for document history.

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2.7 EVALUATION OF COMPLIANCE

Evaluation of Compliance	Bloomenergy
Procedure No.: EHSMS-7 *ISO 14001:2015 Clause 9.1.2* *ISO 45001:2018 Clause 9.1.2*	

2.7.1 Purpose

To establish, implement, and maintain a procedure for periodically evaluating compliance applicable to relevant compliance obligations.

2.7.2 Responsibility

It is the responsibility of Bloom Energy employees, contractors directly hired by Bloom Energy, regulators, or other individuals acting on behalf of Bloom Energy to notify the Vice President, Environment and Regulatory Law of any discovered noncompliance to local, state, or federal regulations.

The Vice President, Environment and Regulatory Law is responsible for ensuring that there are programs and/or procedures in place that adequately evaluate EHS compliance areas applicable to Bloom Energy.

The EHSMS Implementation Team (in consultation with the Environmental, Health and Safety a Steering Committee (EHSSC)) evaluates the effectiveness of these programs on an annual basis and makes recommendations to the Environmental and Social Governance (ESG) Committee, if appropriate.

2.7.3 Definitions

Audit Finding—A statement or indication that describes the results of an audit measured against a defined criterion (e.g., standard or regulation) used to measure the performance of the auditee.

Compliance Obligations—Legal requirements that an organization must comply with and other requirements that an organization must or chooses to comply with.

Corrective Action—Action(s) to eliminate the cause of a noncompliance and to prevent a recurrence. There can be multiple reasons for a noncompliance status.

EHS Compliance Area—Regulatory compliance related areas such as tanks, air quality, hazardous waste, and worker health and safety, that Bloom Energy must ensure compliance with requirements in laws, regulations, codes, and permits.

Internal Compliance Audit—An audit that evaluates the fulfilment of mandatory EHS requirements conducted by the organization itself, or by an external party on its behalf.

Opportunity for Improvement (OFI) —It is a statement of fact made by an assessor during an assessment, and substantiated by objective evidence, referring to a weakness or potential deficiency which if not improved may lead to nonconformity in the future.

SIF (Serious Injury or Fatality)—An actual event where someone is seriously hurt or dies.

SIF-p (Serious Injury & Fatality Potential —A precursor, near miss, or minor incident with the potential for a serious outcome if circumstances were slightly different.

Third-Party Compliance Audit (external audit)—An audit to evaluate the fulfilment of mandatory environmental regulatory requirements conducted by an independent party where the auditor is free to conduct the audit without being controlled or influenced by others. The auditor must be objective, a condition characterized by the absence of bias, influences, and conflicts of interest that affect or have the potential to compromise audit findings (Source: ASTM International E 2107-06, 3.1.16, .17, and .19). The term external is used in ISO 45001. Independence can be demonstrated by the freedom from responsibility for the activity being audited or freedom from bias and conflict of interest (Source: ISO 14001:2015, 3.4.1, ISO 45001:2018, 3.32.).

2.7.4 PROCEDURE

The Vice President, Environment and Regulatory Law is responsible for scheduling and determining how to conduct internal and third-party compliance audits, as appropriate. The overall process follows the Plan, Do, Check, Act approach:

- Plan – Plan Compliance Evaluation
- Do – Conduct Compliance Evaluation
- Check – Evaluate Findings and Define Corrective Actions
- Act – Implement Corrective Actions

2.7.4.1 Internal Compliance Audits

The Bloom Energy EHSMS Implementation Team will ensure that annual internal compliance audits are conducted to verify compliance with mandatory environmental requirements for environmental compliance areas of Bloom Energy facilities and customer installations within the scope of the EHSMS. The compliance obligation documentation will be used as the basis to determine compliance (see Compliance Obligations Procedure, EHSMS-3). Designated Bloom Energy staff or a qualified contractor can conduct the evaluation.

Bloom Energy may conduct annual audits of all EHS compliance areas, facilities and customer installations, or stagger audits of particular EHS compliance areas, facilities and customer installations, as long as all EHS compliance areas at facilities are audited within a three-year time

period and all EHS compliance areas at selected customer installations are audited within a five-year time period. A representative sampling of customer installations may be audited.

2.7.4.2 Third-Party/External Audit Program

The Vice President, Environment and Regulatory Law will determine if third-party audits are to be conducted.

If third-party/external compliance audits are to be conducted, they will be conducted every 3 to 5 years to verify compliance with mandatory EHS requirements at selected Bloom Energy facilities and customer installations within the scope of the EHSMS. Bloom Energy's schedule for third-party compliance audits may cover all EHS compliance areas (e.g., air, water, waste, lock-out/tag out, electrical) and facilities, or may consist of a staggered series of audits that focus on specific compliance areas or selected facilities and customer installations.

The Vice President, Environment and Regulatory Law is responsible for scheduling third-party or external compliance audits.

To ensure a third-party perspective, an audit contractor is used to conduct the third-party audits. Audit protocols, audit reports, resulting findings, and corrective actions are documented and stored on the Bloom Energy intranet.

2.7.4.3 Nonconformance and Corrective Actions Resulting from Compliance Audits

The EHSMS Audit Team will assign one of the following finding categories to each nonconformance:

- Major
    - Safety: SIF or SIF-p as determined by Bloom SIF decision tree and precursor list.
    - Environmental: observed noncompliance (regulatory) with potential for significant adverse impacts to the environment.
- Minor
    - Safety: moderate to low probability of resulting in an injury or illness.
    - Environmental: observed noncompliance (regulatory) without potential for significant adverse impacts to the environment.
- Programmatic
    - Safety: observed noncompliance (regulatory) related to a programmatic, written, or other administrative deficiency.
    - Environmental: observed noncompliance (regulatory) related to a programmatic, written, or other administrative deficiency.

- Opportunity for Improvement – recommendations for reducing risk and improving management.

The EHSMS Audit Team will record each finding and the recommended corrective action in the EHS Compliance Audit report. For each Major finding, the EHSMS Audit Team will record each finding and the recommended corrective action on a Corrective Action Form. Corrective actions for Minor findings and Opportunities for Improvement will be completed and documented internally.

The Vice President, Environment and Regulatory Law, or designee, will input corrective actions identified -on the Corrective Action Form and store on the Bloom Energy intranet, as appropriate.

The Vice President, Environment and Regulatory Law, or designee, will communicate the results to the supervisor(s) of the operational area(s) assessed.

The Vice President, Environment and Regulatory Law, and/or the appropriate Bloom Energy designee, will ensure that appropriate corrective actions are implemented in a timely manner. The Vice President, Environment and Regulatory Law will report updates on corrective action implementation to the ESG Committee. The implemented corrective action may differ from the recommended corrective action.

NOTE: Corrective actions will be implemented as soon as possible and practicable. Longer-term corrective actions will be assigned a timeline for completion with achievable milestones incorporated into the timeline. Corrective action greater than 6 months will be briefed to the ESG Committee.

2.7.4.4 Corrective Actions

The EHSMS Implementation Team, or their designee, with support from the EHSSC as needed, is responsible for audit findings in each of their areas of responsibility and will determine the root cause and develop appropriate corrective action for any finding. A corrective action form will be completed for each Major finding. Corrective actions for Minor or Programmatic findings will be completed and documented internally.

The Vice President, Environment and Regulatory Law is responsible for ensuring implementation of appropriate and timely corrective action for findings. The implemented corrective action may differ from the recommended corrective action. Verification of implementation of corrective action will be completed during the subsequent internal or third-party compliance audit.

NOTE: Corrective actions will be implemented as soon as possible and practicable.

The Vice President, Environment and Regulatory Law, or designee, will present the results of audits and the status of corrective actions at the EHSMS Management Review meeting in accordance with the Bloom Energy Management Review Procedure, EHSMS-14.

The Vice President, Environment and Regulatory Law will consult with the Executive VP Services, Quality, Reliability and EH&S and the Legal Department as necessary regarding findings that may require reporting to a regulator.

2.7.4.5 Documentation

Bloom Energy will maintain its Environmental, Health and Safety Compliance Audit Program on the Bloom Energy intranet, in accordance with the Bloom Energy Documented Information procedure, EHSMS-9, including:

- Completed program-specific compliance checklists, if applicable
- Associated reports
- Corrective actions
- Root cause analysis
- Audit plan
- Any other supporting documentation.

2.7.5 References

- Management Review Procedure, EHSMS-15
- Documented Information Procedure, EHSMS-9
- Bloom Energy EHS Intranet
- ISO 14001:2015(e) Clause 9.1.2, ISO 45001:2018 Clause 9.1.2.

2.7.6 Document History

Refer to the EHSMS Manual Record of Revision Table for document history.

2.8 COMMUNICATION

Communication	Bloomenergy
Procedure No.: EHSMS-7 *ISO 14001:2015 Clause 7.4* *ISO 45001:2018 Clause 5.4 and 7.4*	

2.8.1 Purpose

This procedure formalizes how both internal and external EHS communications are managed at Bloom Energy including what, when, with whom, and how to communicate.

2.8.2 Responsibility

It is the responsibility of Bloom Energy employees, and contractors directly hired by Bloom Energy, to adhere to the communication procedures relative to EHS management and notify the appropriate manager of issues or concerns.

The Vice President, Environment and Regulatory Law is responsible for reviewing general and specific environmental significant communications and escalating issues of concern to the Executive VP, Services, Quality, Reliability and EH&S, Legal Department, and Environmental and Social Governance (ESG) Committee as appropriate.

Corporate Communications is responsible for the communication of internal and external communication procedures at Bloom Energy.

2.8.3 Definitions

Interested Party—Person or group concerned or affected by EHS performance of an organization.

2.8.4 Procedure

2.8.4.1 Internal Communication

In order to ensure that information related to Bloom Energy's EHS management program is communicated effectively within the organization, the following measures have been developed. "Internal" communication at Bloom Energy is defined as communication that occurs within the boundaries of Bloom Energy as an organization.

2.8.4.1.1 General Employee Communications

General environmental communications such as the Environmental and Safety Policy Statements, appropriate performance relative to Environmental and Safety Objectives, and general EHSMS information will be communicated to employees through facility meetings;

training events as defined in the Bloom Energy Training Matrix, EHSMS-6-A; the intranet, and other methods.

2.8.4.1.2 Bloom Energy Internal Meetings/Communications

Recurring internal meetings and/or emails have been established to facilitate communication of EHS compliance management and the EHSMS at different organizational levels of Bloom Energy. The table below outlines the title, scope, attendees, frequency, and responsibility for these internal meetings and/or emails:

Bloom Energy Internal EHS Meetings/Communications

Meeting Title	Scope	Attendees	Frequency	Responsibility
EHSMS Implementation Team Meetings	EHSMS development, modification, and implementation	Bloom EHSMS Implementation Team	Quarterly, and as needed	Vice President, Environment and Regulatory Law
Environmental, Health and Safety Steering Committee (EHSSC) Meetings/Email Updates	Monitoring EHSMS implementation, Objectives, and consulting with/advising EHMS Implementation role	EHSC members	At least semi-annually	Vice President, Environment and Regulatory Law
EHS Corporate Staff Team meetings	All EHS related topics and current status	EHS Corporate Staff	Bi-weekly	Vice President, Environment and Regulatory Law
Safety Committees	Worker health and safety issues	Volunteer employees	Monthly	Local EHS site lead
Management Review	Overview of performance of internal and external audits, objectives, communications including complaints, status of corrective and preventive actions, changing compliance obligations, and recommendations for improvement	ESG Committee, Vice President, Environment and Regulatory Law, and ESC members as needed	Annually	ESG Committee and Vice President, Environment and Regulatory Law

2.8.4.1.3 Other Internal Consultation or Communications

Periodic consultation, if necessary, will occur with the Legal Department for legal guidance regarding determinations of federal and state regulations, and with the Senior Director of Sustainability to ensure alignment of voluntary goals, public disclosure activities, and coordination as needed.

Other examples of internal communication include a quarterly EHS newsletter, Toolbox Talks, In addition, at facilities, the team boards on the shop floor are used for communication.

2.8.4.2 External Communication

Bloom Energy's operations and activities, products, or services may directly impact the general public and other interested parties. Communication with parties outside Bloom Energy may include regulatory inspections from county, state, and/or federal government agencies, contractors, and interested parties' inquiries and/or compliments or complaints.

2.8.4.2.1 Communications with Regulatory Agencies

Communications with regulatory agencies that are significant (e.g., regulatory determination, permit guidance, regulatory interpretation) shall be documented within the Bloom Energy documentation stored on the Bloom Energy intranet.

Communications with regulatory agencies involving a regulatory inspection, issuance of an inspection report, and/or receipt of a Notice of Violation shall be documented on the Bloom Energy intranet, with notations of associated issues as appropriate, to capture follow-up actions and responsible individual(s). See the Internal Audits, Incidents, Nonconformity, and Corrective Action Procedure, EHSMS-14, for more information.

Communications with regulatory agencies will be managed through the appropriate pathways developed by the Vice President, Environment and Regulatory Law.

2.8.4.2.2 Public Communications Including Complaints

Bloom Energy employees may receive questions, comments, compliments, or complaints from interested parties. Corporate Communications will manage communications through the appropriate pathways.

2.8.5 Communications with Contractors

Communications with contractors shall be managed by the relevant Bloom manager/department. All Bloom contractors receive communication through vendor verification portals and are subject to follow the Bloom Contractor Safety Manual.

2.8.6 Recordkeeping

Bloom Energy will retain records of EHSMS related communications within the Bloom Energy intranet.

2.8.7 References

- Internal Audits, Incidents, Nonconformity, and Corrective Action Procedure, EHSMS-14
- Bloom Energy Intranet
- ISO 14001:2015(e) Clause 7.4, ISO 45001 Clause 5.4 and 7.4.

2.8.8 Document History

Refer to the EHSMS Manual Record of Revision Table for document history.

2.9 DOCUMENTED INFORMATION

Documented Information	Bloomenergy
Procedure No.: EHSMS-9 *ISO 14001:2015 Clause 7.5* *ISO 45001:2018 Clause 7.5*	

2.9.1 Purpose

This procedure outlines requirements for documented information and control of documented information for the Bloom Energy EHSMS to maintain a uniform, controlled, and centralized system for the creation, revision, distribution, and disposal of documented information. This procedure will ensure:

- Documented information in association with the EHSMS is maintained
- Documented information remains legible and can be easily identified
- Documented information is regularly reviewed, revised, and approved by authorized personnel prior to use
- Current versions of relevant documented information are available at locations where operations essential to the effective functioning of the system are performed
- Obsolete documented information is promptly removed from points of issue and points of use.
- Documented information follows Bloom's established document retention policy.

2.9.2 Responsibility

It is the responsibility of Bloom Energy employees and contractors directly hired by Bloom Energy, who are owners of documented information (the individuals who are responsible for keeping them up to date) to follow the requirements in this procedure. Other Bloom Energy employees managing documented information shall adhere to the guidelines of this procedure.

2.9.3 Definitions

Documented Information—Information required to be controlled and maintained by an organization and the medium on which it is contained. Documented information can refer to: (1) Information created in order for the organization to operate (can be referred to as documents), and (2) evidence of results achieved (can be referred to as records).

Document—Information created to operate its environmental and health and safety programs and EHSMS (e.g., permits, plans, forms, procedures, manuals, equipment specifications/as-builts, training and/or meeting materials).

Record—A document that states results achieved or provides evidence of activities that were performed. Records are always of past information (e.g., audit report, documentation of a complaint or correspondence, waste manifest, usage log, emissions testing, inspection report, water sample analysis report).

2.9.4 Procedure

2.9.4.1 Naming of EHSMS Documents

Bloom Energy EHSMS documents must comply with the requirements listed below.

- General information will be included within the header section of EHSMS documents.
- File names for EHSMS documents will include the characters "EHSMS" and include a short description assigned by the Bloom EHSMS Implementation Team to accurately describe the document (e.g., the EHSMS Procedure for Environmental Aspects would be EHSMS Environmental Aspects)
- The footer section of EHSMS documents will be annotated with the phrase "uncontrolled when printed."

The following documents are considered EHSMS documents:

- Environmental Policy
- Safety Policy
- EHSMS Scope
- EHSMS Project Plan
  EHSMS Manual and Appendices
  - EHSMS Procedures
  - Context of Organization
- EMS Workbook (includes aspects list, compliance obligations, etc.)
- Hazard Identification and Risk Assessment Register
- Environmental Objectives and Action Plans
- Safety Objectives and Action Plans
- Internal EHSMS Audit Reports
- Internal Compliance Evaluation Reports
- EHSMS Implementation Team Meeting Minutes
- Management Review Presentation and Records

Other EHSMS documents are named and managed at the document owner's discretion.

2.9.4.2 General Document Management

The following describes the management of documented information.

2.9.4.2.1 Storage and Organization

Documented information will be stored and maintained so that it is always readily available. Documented EHS information will be stored in various locations within Bloom Energy and on various media types such as the Bloom Energy intranet. It is the responsibility of documented information owners to ensure that it is legible, is dated, has a revision number (if applicable), is maintained in an orderly manner, and will be retained in accordance with regulatory requirements. Detailed directives regarding management of documents and records, naming convention and retention policy shall reference the current revision of EHSMS Procedure EHSMS-8.

2.9.4.2.2 Review and Updates

The Vice President, Environment and Regulatory Law, or designee, is responsible for capturing documented information changes, and developing tasks as appropriate to ensure prompt review of documented information. Frequency of review will be based upon regulatory or internal requirements.

2.9.4.2.3 Archiving Documents

If a document was modified or updated, the former version should be archived and replaced with the most recent version. Only the most recent version of the document should be included in the Bloom Energy intranet.

2.9.4.3 Security Measures and Information Release

To maintain the security of documented information, access to documented information is controlled by the Vice President, Environment and Regulatory Law, or designee, who must approve security of records and records retention or release decisions.

2.9.4.4 Disposal

Environment-related documented information shall not be destroyed or discarded without the acknowledgement and subsequent approval from the Vice President, Environment and Regulatory Law, regardless of the age of the documented information.

2.9.5 References

- Bloom Energy EHS Intranet
- ISO 14001:2015(e) Clause 7.5
- ISO 14001:2018 Clause 7.5.

2.9.6 Document History

Refer to the EHSMS Manual Record of Revision Table for document history.

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2.10 OPERATIONAL CONTROL

Operational Control	Bloomenergy
Procedure No.: EHSMS-10 *ISO 14001: 2015 Clause 8.1* *ISO 45001:2018 Clause 8.1*	

2.10.1 Purpose

The purpose of this procedure is to outline the process to identify and plan operations that are associated with significant environmental aspects and health and safety hazards to ensure that they are carried out in a manner that reduces risk to Bloom Energy and its employees.

2.10.2 Responsibility

Bloom Energy employees and contractors directly hired by Bloom Energy are to be aware of how their individual job responsibilities may have an impact on the environment and their health and safety.

The EHSMS Implementation Team is responsible for the evaluation of significant aspects in the Environmental Aspects List, identification of hazards and their associated health and safety risks and opportunities, and the identification of current or need for operational control(s).

2.10.3 Definitions

Hazards—A source or situation with a potential to cause injury and ill health.

Hazard Identification—The process of examining each work area and task to identify hazards inherent to work.

Hierarchy of Controls—A system used to prioritize possible interventions to minimize or eliminate exposure to hazards.

Operational Controls—Specific methods for controlling and managing the activities, processes, products, and services associated with environmental aspects and workplace hazards.

2.10.4 Procedure

2.10.4.1 Procedure for Environmental Operational Controls

The EHSMS Implementation Team will review the Environmental Aspects List in the *Bloom Energy EMS Workbook,* EHSMS-4-A, on at least an annual basis as specified in the Environmental Aspects Procedure. The EHSMS Implementation Team will communicate

updates to the Aspect List to the EHSSC. The EHSMS Implementation Team will review the list of environmental aspects and evaluate whether each significant aspect has appropriate operational control(s). Environmental aspects with compliance obligations must have operational control(s), or documented procedures in order to control situations where their absence could lead to a deviation from the Environmental Policy and Environmental Objectives.

The EHSMS Implementation Team will review the list of significant aspects related to contracted services and evaluate whether each significant aspect has appropriate operational control(s).

Current operational controls will be documented in the *Bloom Energy EHSMS Workbook*, EHSMS-4-A, on the Operational Control tab.

Required Training is documented on the Training Matrix provided in Procedure EHSMS-10, Competence and Awareness.

Where operational controls have not been developed and/or are deemed not effective enough, the EHSMS Implementation Team will identify and facilitate the development of that operational control.

2.10.4.2 Procedures for Safety Operational Controls

The activities, processes and products within the scope of the EHSMS will be reviewed and evaluated by competent employees skilled in the identification of hazards and associated risk in accordance with EHSMS-5, Hazard Identification and Risk Assessment and eliminate those hazards and reduce risks using the hierarchy of controls:

- Eliminate the hazard
- Substitute with less hazardous processes, operations, materials or equipment
- Use engineering controls and reorganization of work
- Use administrative controls, including training
- Use adequate personal protective equipment.

Operational Controls will be recorded on the Hazard Identification Register, EHSMS-5A.

2.10.4.3 Management of Change

The management of temporary or permanent organizational changes is important to ensure that changes are safe to implement and working to control any EHS risks that arise.

The EHSMS Implementation Team will work with the existing Change Control Boards and other Bloom personnel to implement the Change Management – Consideration of Impacts to Environmental, Health, and Safety Procedure, DOC-XXXXXXX, Revision 0. Implementation of this procedure will require documentation of the evaluation per the Procedure.

Senior Bloom EHS staff at all Bloom facilities and in the Customer Installation Group will follow this procedure to ensure that change management at Bloom considers potential impacts to the environment, and the health and safety of workers, contractors, customers, and the community. The potential EHS risks associated with proposed changes should be identified and considered prior to changes going into effect. Proposed changes that may require evaluation include:

- Personnel Changes
- Equipment Changes
- New Hazardous Substance
- New/Updated Operating Procedures
- New Process
- EHS Regulatory Change
- New Information on Hazards
- New or Major Product Modification.

2.10.4.4 Procurement Management

Integrating EHS considerations into Bloom's procurement processes is essential for ensuring the sustainability and compliance of Bloom's operations. Procurement activities involve sourcing, purchasing/procuring, and managing goods and services (e.g., both direct and indirect procurement.)

In general, Bloom EHS staff work with procurement and other relevant departments to consider the best methods to employ to ensure this integration. Considerations include:

- Understanding the risks involved in the product or service being procured (for both Bloom and the contractor/supplier)
- Accurately describing the services required during procurement of services
- Accurately describing the EHS requirements of any goods/products being procured
- Understanding if and how contracted services should be monitored

Customer Installation Group (CIG) procurement of Installation Contractors

In order to ensure their conformity with the EHSMS, Bloom Energy includes EHS criteria for the selection of contractors into its requests for proposal and contractual documents. The safety records of the companies are evaluated during the selection process, and the contracts require that installation contractors have a health and safety plan that meets the minimum requirements in the Bloom Energy Contractor Safety Manual. Bloom Energy staff monitor contractor compliance with their health and safety plans on a regular basis during construction.

Procurement of Goods and Services

Bloom EHS staff work with procurement and other staff to determine the EHS criteria that need to be evaluated or communicated to suppliers and companies providing services to Bloom. The evaluation is determined on a risk basis. For example, the purchasing of office supplies has a different risk profile than the purchasing of products to be incorporated directly into a Bloom

Energy server that may need to meet electrical safety standards (Underwriters Laboratories (UL) for example). This may also include the identification of unique hazards that might be associated with providing services at Bloom facilities, such as the need to work in confined space or a potentially hazardous environment. Procurement staff determine whether and how to incorporate EHS requirements into supplier contracts or purchase orders with the advice of Bloom EHS professionals.

2.10.5 Documentation

Environmental Operational Controls should be recorded on the Operational Control tab on the EMS Workbook and stored on the Bloom Energy Intranet. Hazard Workbook.

Management of Change documentation is stored on the Bloom Energy Intranet.

2.10.6 References

- Environmental Aspects Procedure, EHSMS-4
- Hazard Identification and Risk Assessment Procedure, EHSMS-5
- Competence and Awareness Procedure, EHSMS-11
- Bloom Energy EMS Workbook, EHSMS-4-A
- Bloom Energy Hazard Identification Register, EHSMS-5A
- Documented Information Procedure, EHSMS-9
- Bloom Energy Intranet
- ISO 14001:2015(e) Clause 8.1.
- ISO 14001:2018 Clause 8.1

2.10.7 Document History

Refer to the EHSMS Manual Record of Revision Table for document history.

2.11 COMPETENCE AND AWARENESS

Competence and Awareness	Bloomenergy
Procedure No.: EHSMS-11 *ISO 14001:2015 Clauses 7.2 and 7.3* *ISO 45001:2018 Clauses 7.2 and 7.3*	

2.11.1 Purpose

This procedure outlines the process to ensure that person(s) performing tasks on behalf of Bloom Energy that can cause a significant environmental impact or affect health and safety are trained on and aware of their responsibilities, and that the training is documented.

2.11.2 Responsibility

Bloom Energy employees, interns, contractors directly hired by Bloom Energy, and subcontractors are to be aware of how their individual job responsibilities may have an impact on the environment and on the health and safety of themselves and co-workers.

Bloom Energy employees, interns, contractors directly hired by Bloom Energy, and subcontractors are to be aware of the implications of not conforming to the EHSMS and compliance obligations.

Bloom Energy employees, interns, contractors, and subcontractors are responsible for attending environmental and health and safety training as required. Contractors directly hired by Bloom Energy and working within the physical boundaries or at customer installations will attend training as required by their contracts and will ensure subcontractors receive training as needed.

The EHSMS Implementation Team is responsible for reviewing the Environmental Aspects Procedure, Environmental Aspects List, and identification of significant environmental aspects on at least an annual basis. The EHSSC is consulted, as necessary.

The EHSMS Implementation Team is responsible for incorporating new or modified significant aspects into relevant environmental training or, if necessary, the need for a new environmental training module.

The EHSMS Implementation Team is responsible for identifying necessary competences of workers that can affect the health and safety performance of Bloom Energy and its workers.

The Vice President, Environment and Regulatory Law is responsible for the overall facilitation of EHS training at Bloom Energy.

The Vice President, Environment and Regulatory Law is responsible for review and approval of modifications to the significant environmental aspects.

2.11.3 Procedure

2.11.3.1 EHSMS Awareness

The Vice President, Environment and Regulatory Law, or designee, will develop and provide at least triennial EHSMS awareness training for Bloom employees, interns, contractors, and subcontractors within the scope of the EHSMS, as required. EHSMS awareness training is provided to new employees through the onboarding process. The EHSMS awareness training will cover:

- The Environmental and Safety Policy Statements
- The significant environmental aspects and related actual or potential environmental impacts
- Hazards, health and safety risks and relevant actions
- Important incidents and outcomes of investigations
- Employee health and safety rights
- Employees' contribution to the effectiveness of the EHSMS, including the benefits of enhanced environmental, health and safety performance
- The implications of not conforming with EHSMS requirements, including not fulfilling the organization's compliance obligations
- Environmental and safety objectives of the EHSMS.

2.11.3.2 Environmental, Health and Safety Competency

The EHSMS Implementation Team, or designee, will review each environmental aspect on the Bloom Energy Environmental Aspects List and determine if environmental training is required by a compliance obligation. The EHSMS Implementation Team will also review the Hazard Identification and Risk Assessment Register and identify the training requirements.

Annually, the EHSMS Implementation Team will review and update the Bloom Energy Training Matrix or matrices, which details EHS training requirements for Bloom Energy personnel, interns, contractors, and subcontractors.

This matrix(ces) includes the course number (if available), course name, EHS compliance area, procedure information (if applicable), roles required to receive the training, whether the course is internal or external, frequency, the trainer, and the individual responsible for coordinating the training.

The Vice President, Environment and Regulatory Law will coordinate with the EHMS Implementation Team to ensure that the matrix(ces) is accurate and implemented accordingly. This group will also ensure that roles are associated with the correct training courses within the matrix(ces).

Personnel who are assigned responsibilities for coordinating EHS training will conduct it in accordance with the Bloom Energy Training Matrix(ces) maintained on the Bloom Energy intranet.

2.11.4 Recordkeeping

The individual(s) responsible for coordinating training (as outlined in the Bloom Energy Training Matrix(ces)) will ensure that the contents of the training (i.e., agenda, presentation materials, etc.) and training records (name, date, subject of training, and attendance) are maintained on the Bloom Energy intranet.

2.11.5 Competency

Employee competence relative to required training will be accomplished primarily through training and observation of performance by that employee's supervisor. In addition, employee competency may be determined through a variety of methods including tabletop exercises administered at the time of training, certification exams associated with specific training, and through the assessment of facility EHS performance as referenced in the Evaluation of Compliance Procedure.

2.11.6 Bloom Energy Contractors

Bloom Energy will communicate regulatory requirements to its contractors, if applicable, through scope of work and contract language. Contractors are responsible for communicating these requirements to subcontractors.

2.11.7 References

- Bloom Energy Training Matrix
- Environmental Aspects Procedure, EHSMS-4
- Hazard Identification and Risk Assessment, EHSMS-5
- Bloom Energy EMS Workbook, EHSMS-4-A
- Bloom Energy Hazard Identification and Risk Assessment Register, EHSMS-5-A
- Bloom Energy EHS Intranet
- ISO 14001:2015(e), Clauses 7.2 and 7.3.
- ISO 45001:2018, Clauses 7.2 and 7.3

2.11.8 Document History

Refer to the EHSMS Manual Record of Revision Table for document history.

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2.12 EMERGENCY PREPAREDNESS AND RESPONSE

Emergency Preparedness and Response	Bloomenergy
Procedure No.: EHSMS-12 *ISO 14001: 2015 Clause 8.2* *ISO 14001:2018 Clause 8.6*	

2.12.1 Purpose

This procedure describes Bloom Energy's process for identifying potential emergencies and potential accidents that can have an impact on the environment, health and safety (EHS) and how Bloom Energy will respond to them.

2.12.2 Responsibility

Bloom Energy employees, interns, contractors directly hired by Bloom Energy, and subcontractors are responsible for knowing how their individual job responsibilities may have an impact on the environment or the health and safety of its workers.

The EHSMS Implementation Team, or their designee, is responsible for the identification of potential emergencies and potential accidents that can have an impact on EHS.

The Vice President, Environment and Regulatory Law is responsible for ensuring that adequate emergency preparedness and response are developed, managed, and communicated to all workers and interested parties appropriately.

The Executive VP Services, Quality, Reliability and EH&S is responsible for ensuring the appropriate resources to implement emergency preparedness and response plans.

2.12.3 Procedure

The EHSMS Implementation Team will review the Environmental Aspects List on at least an annual basis as specified in the Environmental Aspects Procedure, EHSMS-4.

The EHSMS Implementation Team, or their designee, will review the list of aspects and consider the hazard identification and risk assessment process to identify potential emergencies to ensure that appropriate operational controls and emergency preparedness and response plans are in-place.

The Vice President, Environment and Regulatory Law will ensure that appropriate emergency preparedness and response plans are developed and implemented. The Vice President, Environment and Regulatory Law, or designee, will review the procedures and plans in place at least annually and following an emergency event to ensure they are effective. When reviewing plans and procedures, the following should be considered to ensure adequacy:

- Nature of onsite hazards

- Most likely type and scale of emergency or accident situations
- Most appropriate response
- Internal/external communications
- Actions to minimize environmental damage
- Mitigation/response actions
- Process for post-accident evaluation for developing preventive actions
- Periodic testing of emergency response procedures as required
- Training of response personnel
- Key personnel contacts
- Evacuation routes and assembly points
- Potential for an emergency at a nearby facility
- Possibility of assistance by neighboring persons

Bloom Energy has developed emergency preparedness and response plans required by regulations such as Spill Prevention, Control, and Countermeasures Plans, Hazardous Waste Contingency Plans, and any state or local ordinance. These plans and their supporting procedures can be found on the Bloom Energy intranet.

2.12.3.1 Emergency Preparedness and Response Testing

The Vice President, Environment and Regulatory Law, or designee, will test the response measures outlined in the plan or procedure with applicable personnel as required by regulation or deemed necessary. Testing is completed either in the field or as a tabletop exercise as appropriate.

A record of the test is maintained with the plan or procedure and includes the date, participants, details of the emergency drill, response measures taken to address the emergency, and evaluation of the appropriateness of response measures. If testing determines that adequate measures are not currently addressed in the plan or procedure, then they must be further evaluated and updated.

2.12.4 Recordkeeping

In addition to testing records, the individual(s) responsible for emergency response processes and plans will ensure that the plans are maintained on the Bloom Energy intranet.

2.12.5 References

- Hazard Identification and Risk Assessment Procedure, EHSMS-5
- ISO 14001:2015(e) Clause 8.2
- ISO 45001:2018 Clause 8.2
- Facility-specific Emergency Action Plans.

2.12.6 Document History

Refer to the EHSMS Manual Record of Revision Table for document history.

2.13 MONITORING AND MEASUREMENT

Monitoring and Measurement	Bloomenergy
Procedure No.: EHSMS-13 *ISO 14001:2015 Clause 9.1* *ISO 45001:2018 Clause 9.1*	

2.13.1 Purpose

This procedure describes how Bloom Energy will monitor, and measure performance related to Environmental and Health and Safety Objectives. This procedure will also describe how Bloom Energy will monitor and measure key environmental characteristics and identified hazards, risks and opportunities of its activities and operations that can have a significant environmental impact or health and safety risk to ensure proactive management. In addition, this procedure will ensure that equipment used to monitor environmental, health, and safety (EHS) performance is calibrated appropriately, and that calibration and/or maintenance records are maintained.

2.13.2 Responsibility

Bloom Energy employees, interns, contractors, and subcontractors are responsible for attending EHS training as required. Contractors directly hired by Bloom Energy and working within the physical boundaries or at customer installations will attend training as required by their contracts and will ensure subcontractors receive training as needed.

The EHSMS Implementation Team is responsible for the identification of Performance Indicators for certain significant environmental aspects, identified hazards, effectiveness of operational and other controls, and Environmental and Safety Objectives.

2.13.3 Definitions

Audit Finding—A statement or indication that describes the results of an audit measured against a defined criterion (e.g., standard or regulation) used to measure the performance of the auditee.

Corrective Action—Action(s) to eliminate the cause of a noncompliance and to prevent a recurrence. There can be multiple reasons for a noncompliance status.

Environmental Objective—Overall environmental goals, consistent with the Environmental Policy that an organization sets itself to achieve and is quantified where practicable.

Environmental Program (Action Plan)—Action plans provide the steps to be taken to achieve the Environmental Objectives.

Hazard—*A source or situation with a potential to cause injury and ill health.*

Hazard Identification—The process of examining each work area and task to identify hazards inherent to work.

Safety Objective— Overall health and safety goals, consistent with the Safety Policy that an organization sets itself to achieve and is quantified where practicable.

Safety Program (Action Plan)—Action plans provide the steps to be taken to achieve the Safety Objectives.

Significant Environmental Aspect—An environmental aspect, which has or can have a significant environmental impact.

2.13.4 Procedure

2.13.4.1 Monitoring and Measurement of Significant Aspects

The EHSMS Implementation Team will review significant environmental aspects, and environmental aspects with compliance obligations, and:

- Identify associated monitoring and/or measurement activities, products, or services that are currently being performed and record it on the *Bloom Energy EMS Workbook*, EHSMS-4-A, on the Monitoring/Measurement tab. Information to be recorded includes:

  — Item monitored or measured
  — Frequency of monitoring/measurement
  — Method
  — Location of documentation
  — Responsible party
  — Other pertinent comments.

- Identify those that do not have current monitoring and measurement activities, but require them, and record this on the Environmental Aspects List.

2.13.4.2 Monitoring and Measurement of Hazards and Risks

The EHSMS Implementation Team will regularly review identified hazards and risks to ensure that they ae appropriately managed and the relevant data about them remains accurate and reliable.

Safety performance monitoring is conducted by the Vice President, Environment and Regulatory Law through the collection of safety data and information from various sources. Using this data for safety performance monitoring and measurement is an essential activity that generates the information necessary for safety risk decision-making.

Monitoring takes various forms, ranging from self-assessment inspections, and internal audits to detailed reviews by external experts if determined to be needed. Inspections are undertaken regularly to identify hazards and verify the implementation of risks controls.

2.13.4.3 Monitoring and Measurement of Environmental and Safety Objectives

Review progress on meeting the Environmental and Safety Objectives and performance indicators specified in their associated action plans. Environmental and Safety Programs (Action Plans) will identify performance indicators/metrics, schedules, and responsible parties.

Monitoring of Environmental and Safety Objectives should occur at least quarterly by the EHSMS Implementation Team, semi-annually by the EHSSC, and at least annually at the Management Review.

2.13.4.4 Monitoring and Measurement of Environmental, Health and Safety Compliance Performance

Compliance monitoring at Bloom Energy is achieved through regular, recurring regulatory and permit driven inspection, monitoring, recordkeeping, and reporting activities. These activities or tasks are documented in several ways such as within the Bloom Energy intranet.

In addition, the Evaluation of Compliance Procedure, BLOOM-EHSMS-7, outlines an Internal Compliance Audit Program, and a potential Third-Party Compliance Audit Program, designed to evaluate and monitor compliance.

2.13.4.5 Monitoring and Measurement Equipment

Equipment used for the monitoring or measurement of EHS performance shall be calibrated in accordance with manufacturers' specifications. The appropriate office or party will maintain records of calibration responsible for the monitoring or measurement.

Manufacturers' specifications, and operations and maintenance manuals for Bloom Energy-owned equipment, shall be retained and maintained as controlled documents on the Bloom Energy intranet, the facilities where equipment is located, or other location designated by the Vice President, Environment and Regulatory Law.

2.13.4.6 Monitoring and Measurement of Corrective Actions and Audit Findings

The Vice President, Environment and Regulatory Law, or designee, will monitor corrective actions in accordance with the Internal Audits, Incidents, Nonconformity, and Corrective Action Procedure, BLOOM-EHSMS-14, and audit findings and associated corrective actions in accordance with the Evaluation of Compliance Procedure, BLOOM-EHSMS-13.

2.13.5 References

- Environmental Aspects Procedure, EHSMS-4
- Hazard Identification and Risk Assessment Procedure, EHSMS-5

- Evaluation of Compliance Procedure, EHSMS-7
- Internal Audits, Incidents, Nonconformity, and Corrective Action Procedure, EHSMS-14
- Bloom Energy EHS Intranet
- ISO 14001:2015(e) Clause 9.1
- ISO 45001:2018 Clause 9.1.

2.13.6 Document History

Refer to the EHSMS Manual Record of Revision Table for document history.

2.14 INTERNAL AUDITS, INCIDENTS, NONCONFORMITY, AND CORRECTIVE ACTION

Internal Audits, Incidents, Nonconformity, and Corrective Action	Bloomenergy
Procedure No.: EHSMS-14 *ISO 14001:2015 Clauses 9.2 and 10.2* *ISO 45001:2018 Clauses 9.2 and 10.1*	

2.14.1 Purpose

This procedure is to establish a process to ensure that Bloom Energy conducts audits to determine the conformance of its EHSMS with its EHSMS procedures, and to ensure they can make informed decisions regarding its continuing suitability, adequacy, and effectiveness by using the results of the audit.

This procedure also establishes a process to manage incidents and nonconformities including reporting, investigating, and taking action.

2.14.2 Responsibility

The Vice President, Environment and Regulatory Law is responsible for establishing an EHSMS audit schedule each year and for ensuring that there are programs in place to meet required Bloom Energy EHSMS audit standards.

The Vice President, Environment and Regulatory Law, or designee, will document and coordinate corrective actions associated with incidents and nonconformances.

The Executive VP Services, Quality, Reliability and EH&S, is responsible for designating appropriate resources to address corrective actions associated with incidents and nonconformances.

2.14.3 Definitions

Corrective Action—Action(s) to eliminate the cause of a nonconformity or an incident and to prevent recurrence. There can be multiple causes for nonconformity.

Incident—Occurrences(s) arising out of the course of work that could or does result in injury and ill health.

Internal EHSMS Audit—The systematic and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the EHSMS audit criteria set by the organization are fulfilled.

Nonconformity—Any failure to meet the requirements of the EHSMS; any deviation from the procedures contained in the EHSMS.

Third-Party EHSMS Audit—The systematic, independent, and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the EHSMS audit criteria set by the organization are fulfilled.

2.14.4 Procedure

2.14.4.1 Internal EHSMS Audit – Planning

The internal EHSMS audit is a review of the EHSMS and its conformance to Bloom Energy EHSMS Procedures.

The Vice President, Environment and Regulatory Law will schedule an annual internal EHSMS audit.

The Vice President, Environment and Regulatory Law will select the Internal EHSMS Audit Team, which may consist of EHSMS Implementation Team members, other Bloom Energy employees, contractors, and/or individuals who have been deemed competent to conduct such audits.

2.14.4.2 Third-Party EHSMS Audits

The Vice President, Environment and Regulatory Law will schedule periodic third-party EHSMS conformance audits at their discretion.

2.14.4.3 EHSMS Audits – Conducting

The auditors will use an EHSMS Audit checklist as a tool to guide the audit process (Appendix 3).

The audit may include facility tours; a review of associated documents, records, and reports; and personnel interviews. Bloom Energy personnel associated with operational areas, which are being assessed, will cooperate with the Bloom Energy EHSMS Audit Team and their requests for information.

The Bloom Energy EHSMS Implementation Team will provide advance notification to supervisors of operational areas, which will be included in the audit. A post-audit briefing will be held to notify supervisors of operational areas assessed of pertinent findings.

2.14.5 Incident, Nonconformity and Corrective Actions

2.14.5.1 Incident, Nonconformity and Corrective Actions Occurring Anytime

When an incident or nonconformity occurs, Bloom Energy will:

- React in a timely manner to the incident or nonconformity and take direct action to control and correct it and deal with the consequences.
- Enter information into the electronic Incident, Injury, Illness reporting system in a timely fashion when any accident, incident, equipment damage, injury, illness, near miss, and/or environmental incident occurs.
- Evaluate, with the participation of workers and other interested parties, the need for corrective action to eliminate the root cause(s) of the incident or nonconformity by reviewing it, determining causes, and determining if similar incidents/nonconformities exist or potentially could occur.
- Review the assessment of health and safety risks as appropriate.
- Determine and implement actions needed, including corrective action, in accordance with the hierarchy of controls and the management of change.
- Track corrective actions to completion within the electronic system.
- Review effectiveness of corrective actions taken.
- Make changes to the EHSMS management system if needed.

2.14.5.2 Nonconformity and Corrective Actions Resulting from Audits

The EHSMS Audit Team will assign one of the following finding categories to each nonconformity:

- Major – a major deficiency that seriously impairs the effectiveness of the EHSMS
- Minor – a minor deficiency that does not seriously impair the effectiveness of the EHSMS
- Opportunity for Improvement – recommendations for reducing risk and improving management.

For each Major finding, the EHSMS Audit Team will record each finding and the recommended corrective action on a Corrective Action Form. Corrective actions for Minor findings and Opportunities for improvement will be completed and documented internally.

The Vice President, Environment and Regulatory Law, or designee, will input corrective actions identified in the Corrective Action Form and store on the Bloom Energy intranet, as appropriate.

The Vice President, Environment and Regulatory Law, or designee, will communicate the results to the supervisor(s) of the operational area(s) assessed.

The Vice President, Environment and Regulatory Law, and/or the appropriate Bloom Energy designee, will ensure that appropriate corrective actions are implemented in a timely manner. The Vice President, Environment and Regulatory Law will report updates on corrective action implementation to the ESG Committee. The implemented corrective action may differ from the recommended corrective action.

NOTE: Corrective actions will be implemented as soon as possible and practicable. Longer-term corrective actions will be assigned a timeline for completion with achievable milestones incorporated into the timeline. Corrective action greater than 6 months will be briefed to the ESG Committee.

2.14.6 Documentation

The Vice President, Environment and Regulatory Law, or designee, will maintain EHSMS Audit and incident occurrence/investigation documentation on the Bloom Energy intranet, and in accordance with Bloom Energy recordkeeping requirements. Documentation will include:

- Completed Internal EHSMS Audit checklists
- Completed EHSMS Corrective Action Forms
- Electronic Incident Reporting Tool records
- Records associated with identified EHS issues
- Any other supporting documentation (photographs, etc.).

2.14.7 References

- Bloom Energy EHS Intranet
- ISO 14001:2015(e) Clauses 9.2 and 10.2
- ISO 45001:2018 Clauses 9.2 and 10.2
- EHSMS Audit checklist (Appendix 3)
- EHSMS Corrective Action Forms (Appendix 3)

2.14.8 Document History

Refer to the EHSMS Manual Record of Revision Table for document history.

2.15 MANAGEMENT REVIEW

Management Review	Bloomenergy
Procedure No.: EHSMS-15 *ISO 14001:2015 Clause 9.3* *ISO 45001:2018 Clause 9.3*	

2.15.1 Purpose

The purpose of this procedure is to outline the requirements for Bloom Energy's EHSMS Management Review. The intent of the Management Review is for the Environmental and Social Governance (ESG) Committee to evaluate the progress, applicability, and effectiveness of Bloom Energy's EHSMS for periodic Management Reviews.

2.15.2 Responsibility

The Vice President, Environment and Regulatory Law is responsible for directing the preparation of the content for the meeting and developing supporting meeting materials.

The Vice President, Environment and Regulatory Law is responsible for attending the management review meeting; evaluating EHSMS progress, applicability, and effectiveness of the Bloom Energy EHSMS; and providing recommendations for continual improvement.

The Environmental and Social Responsibility (ESG) Committee is responsible for attending the Management Review meeting and providing feedback and direction to the Vice President, Environment and Regulatory Law and Environmental, Health and Safety Steering Committee (EHSSC).

2.15.3 Definitions

Environmental Objective—Overall environmental goals, consistent with the environmental policy, that an organization sets itself to achieve, and is quantified where practicable.

Incident—Occurrences(s) arising out of our in the course of work that could or does result in injury and ill health.

Safety Objective—Overall safety goals, consistent with the safety policy, that an organization sets itself to achieve, and is quantified where practicable.

2.15.4 Procedure

On at least an annual basis[1], the Vice President, Environment and Regulatory Law, or designee, the ESG Committee and EHSSC members as appropriate, will meet to review the prior year's EHSMS efforts, evaluate the effectiveness of the current EHSMS, and identify areas of improvement. Topics to be covered in the meeting shall include but not be limited to:

- The status of actions from previous management reviews
- Changes in:
  - External and internal issues that are relevant to the EHSMS
  - The needs and expectations of interested parties, including compliance obligations
  - Significant environmental aspects
  - Risks and opportunities
- The extent to which Environmental and Safety Objectives have been achieved
- Information on the organization's EHS performance, including trends in:
  - Incidents, nonconformities, and corrective actions
  - Worker participation and the outputs of consultation
  - Monitoring and measurement results
  - Fulfilment of its compliance obligations
- Audit results
- Adequacy of resources
- Relevant communication(s) from interested parties, including complaints
- Opportunities for continual improvement.

The Vice President, Environment and Regulatory Law and ESC will assemble the documentation to support the information required as detailed above. This may include a presentation and other supporting meeting materials that will provide the basis for the discussion of the items identified above.

A record of the meeting will be documented by the Vice President, Environment and Regulatory Law, or designee.

The Vice President, Environment and Regulatory Law will identify action plans resulting from the Management Review, which will need to be documented formally as action plans. These may include but not be limited to:

- Conclusions on the continuing suitability, adequacy, and effectiveness of the EHSMS
- Decisions related to continual improvement opportunities
- Decisions related to need for changes to the EHSMS, including resources
- Actions, if needed, when Environmental or Safety Objectives have not been achieved
- Opportunities to improve integration of the EHSMS with other business processes, if needed

[1] Please note that the review process may take place over a period of time and during several meetings, in order to cover the full scope of the EHSMS in a timely and effective manner. In addition, Bloom Energy may elect to have a Management Review more than once per year.

- Any implications for the strategic direction of the organization
- Updates to the Environmental or Safety Policy
- Additional or modified Environmental or Safety Objectives
- Updated and/or new processes and Standard Operating Procedures
- Additional or modified training programs
- Other recommendations for improvement.

2.15.5 Recordkeeping

Records of the Management Review meeting will be distributed to Bloom Energy personnel as appropriate. The Management Review will be documented within the Bloom Energy intranet. Actions resulting from the Management Review will be documented on the Bloom Energy intranet, as appropriate.

2.15.6 References

- Bloom Energy EHS Intranet
- ISO 14001:2015(e) Clause 9.3
- ISO 45001:2018 Clause 9.3.

2.15.7 Document History

Refer to the EHSMS Manual Record of Revision Table for document history.

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Appendix 1

Context of Organization Evaluation Results

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Appendix 1

Context of Organization Evaluation Results

BLOOM ENERGY EMS CONTEXT OF ORGANIZATION: INTERESTED PARTIES, STAKEHOLDERS
Updated: 10/18/2023

Shareholders	Employees	Contractors / Providers	External Customers	Internal Customers	Material Suppliers	Media	Communities	Government / Regulators	NGOs	Partner Company	Investors	Standards Bodies
European Equity Holders	Marketing/sales	General Contractors	**Utilities**	Sales	Hontech	Local Media (near manufacturing)	Vulnerable Populations (elderly, children, etc.)	**EPA**	Environmental Justice	**SK**	PPA	**SASB**
Green European Funds (target)	US based	Hazardous Waste Contractors	Hospitals/Medical	Comms	Eaton	Microgrid Knowledge	Business Community	**State Regulators**	Energy-specific	Schneider Electric		**TCFD**
Black Rock	International based	Randstadt	**Data Centers**	Investor Relations (IR)	TESCO	**Fortune**	Campuses/ Universities	Local Regulators	**EDF**	**Samsung Heavy Industries**		GRI
State Street	Contingent Workers (temps)	Logistics	Precision Manufactuaring	**R&D**	IEM	**WSJ**	Delaware State Assembly	OSHPD	**NRDC**	Duke		**CDP**
BOD	Field Service Techs (FSTs)	**ShoreMet**	Retail	Quality	Ceramic	Social Media Channels	Delaware Community Orgs.	Div. of State Architect (CA)	**Clean Air Task Force**	Black and Veatch		**UL**
	Customer Installation Group (includes Site Superintendents)	FirstTech (haz waste vendor)	Maritime	Operations	IC (Interconnect)	GreenTech Media/Conferences	Santa Clara/San Jose Community	Air Regulators (state)	Union of Concerned Scientists	**Southern Co.**		CE
			Oil & Gas Industry	Marketing	Ink and Electrolytes	Trade Press	Natural Disaster Org (turn communities into resilience hubs)	Air Regulators (regional)	Technet	Shell		KOSHA
			CIG carbon initiative	Policy Team	Blowers	Academic Media		Water regulators (regional)	Coalition for Clean Air			KESCCO
			Genentech	Product Development	MFCs	E&E		Ministry of the Environment (MOE)	Earth Justice			IEEE
			Apple		**Acbel**			Pollution Control Board	Sierra Club			IMO
			Intel		**Desulf suppliers**							

High Priority Stakeholder

NEEDS AND EXPECTATIONS

Black Text: Applicable across all Bloom Operations
Red: Applicable to US only
Blue: Applicable to Korea only
Green: Applicable to India only

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BLOOM ENERGY EMS CONTEXT OF ORGANIZATION: INTERNAL ISSUES
Updated: 10/18/2023

Logistics	Material Storage/ Handling	Resources	Finance	Marketing/ New Products	Operations (Bloom Facilities)	Organizational Culture, Values, & Governance	Environmental Performance of Products	Relationships with External Providers (Partners/Providers)	Information Management Systems	Standards/ Models Accepted	Communication
Product Shipping (trucks)	Hazardous Materials	Subject Matter Expertise	ROI		Emissions Efficiencies/Low Environmental Impact (DE)	**Management of Change**	**Air Emissions (criteria and CO_2)**		Env. IMS		**Environmental Performance (consistency)**
Material Shipping	Transformer Oil	Labor/ Employees			Solid waste management	Customer communications	Water Efficiency		Overarching IMS		Front/Back of House Disconnect
Movement between Plants	Flammable Liquids	Funding/$			Electricity Use	Brand & Reputation	**Hazardous Waste Handling**				Importance of Methods of Communication to "Important" Stakeholders
	Filling of Desulf Canisters (JV)	Technology			Water Use		Product End of Life				**Life Cycle Performance/ Impact**
					Diesel		Wastewater				
					Hazardous Waste		Hydrogen Management (future)				
					Fleet		Water Sourcing				
					Noise		Installation Siting (previously contaminated sites)				
					Aesthetics (siting)		Noise				
							Aesthetics (siting)				
							Life Cycle Performance/ Impact				
High Priority Internal Issues											

Black Text: Applicable across all Bloom Operations
Red: Applicable to US only
Blue: Applicable to Korea only
Green: Applicable to India only

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BLOOM ENERGY EMS CONTEXT OF ORGANIZATION: EXTERNAL ISSUES
Updated: 10/18/2023

Economy	Legislation / Government Policy	Changes in Technology	Competition	Clients	Social Trends	Climate Volatility	Community	Political	Ethical
Tax Equity	Natural Gas Bans	**Fossil Transition & Natural Gas Supply Chain Responsibility**	Deal Complexity	Environmental Performance	Brand & Reputation	**Climate Action & Decarbonization**	End of Life Story	Natural Gas Bans	**Rare Earth & Conflict Minerals**
World Economies	Environmental Justice (EJ)	**Growth of Renewable Fuels**				Resiliency	Environmental Performance	Environmental Justice (EJ)	Environmental Justice (EJ)
	Carbon Pricing	**Platform Flexibility (Opportunity)**						Carbon Pricing	
	Incentive Tax Credits							Incentive Tax Credit	
	Statewide Credits							Statewide Credits	
	Hazardous Air Pollutants (HAPs)								
	Toxic Air Contaminants (TACs)								
	Inflation Reduction Plan								
High Priority External Issues									

Black Text: Applicable across all Bloom Operations
Red: Applicable to US only
Blue: Applicable to Korea only
Green: Applicable to India only

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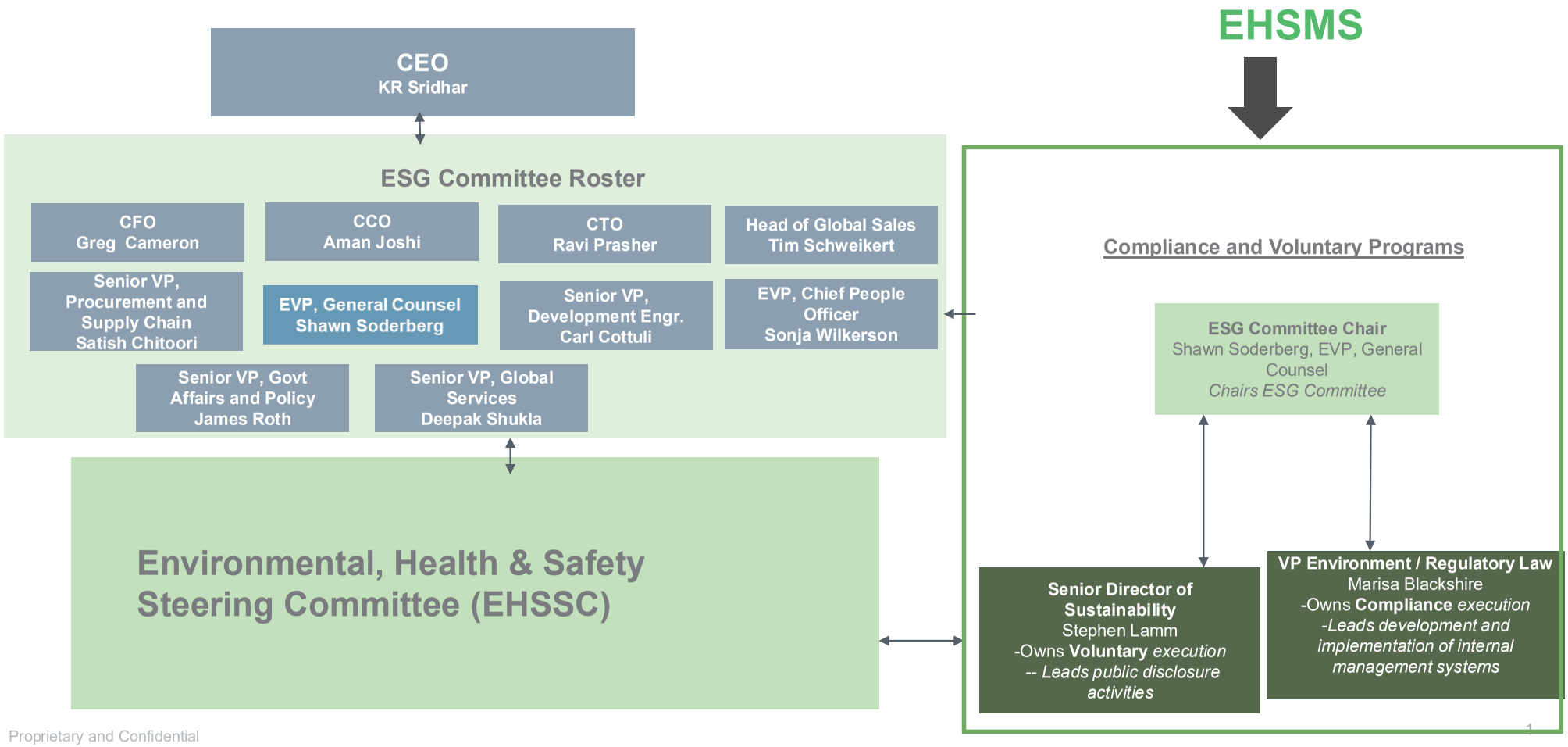
Appendix 2

Environmental and Social Governance (ESG) Committee and Environmental, Health and Safety Steering Committee (EHSSC) Organization

BLOOM ENERGY ORGANIZATIONAL STRUCTURE



BLOOM ENERGY ENVIRONMENTAL, HEALTH & SAFETY STEERING COMMITTEE (EHSSC)

Marisa Blackshire, VP, Environment & Regulatory Law	**Michael Roesch**, VP, Supportability Engineering
Aruna Iyer, Head of Internal Audit	**Stephen Lamm**, Sr. Director Sustainability
Charles Walton, Director, Mfr Engineering	**Sumeet Atwal**, Sr. Manager, EH&S
Jessica Mahler, Sr. Director, Development Engineering	**Mark Parrish**, Director, Structured Finance
Daniel Hom, Principal Facilities Engineer	**Dave Demarest**, Sr. Manager, EH&S
Amanda Marruffo, Sr. Manager Environmental Compliance	**James Matthews**, Manager Permitting and Entitlements
Andy Auger, Director R&O Manufacturing	**Andy Leming**, Director Ink Manufacturing
Jeff Mueller, Director, Customer Success	**Dennis Bertmeyer**, Product Support Engineer
Cassidy Hyslop, EH&S Coordinator	**Paul Mey**, EH&S Coordinator
Carl Cottuli, SVP, Development Engineering	**Danielle Herrick,** Sr. Director Legal Compliance / Ethics
Charles Walton, Director, Mfr Engineering	**Brian Harper,** Director, Field Service
Dominic Pina, EH&S Coordinator	**Maurice Browne**, Sr. Mgr. EHS, Field Services

Blue text = EHSMS Implementation Team

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Appendix 3

EHSMS Audit Checklist and Corrective Action Form

Bloom Energy EHSMS Audit Form **ISO 45001:2018 AND 14001**

Scoring

0	*The organization has not yet fulfilled this requirement*
1	*The organization has partially fulfilled this requirement*
2	*The organization has completely fulfilled this requirement*

ISO14001:2015 & 45001:2018 Clause #	Scoring for Status of Implementation None 0	Partial 1	Complete 2	Total	14001 and 45001 Requirements	Documented Information Reference	Explanatory Notes and *Actions Needed*
4				0%	**Context of the Organization**		
4.1					**Understanding the Organization and its Context**		
				0	• Have you determined external and internal issues that are relevant to your purpose and your strategic direction and that affect your ability to achieve the intended outcomes of your EHSMS?		
				0	• Do you monitor and review information about these external and internal issues? How?		
					Method: *Ask for EMS and SMS Context and Scope documentation to confirm this and discuss with Team Leader the process for developing and monitoring.*		
4.2					**Understanding the Needs and Expectations of Interested Parties**		
				0	• Have interested parties in addition to the workers that are relevant been identified?		
				0	• Have (their) interested parties needs and expectations been determined?		
				0	• Are any of these needs & expectations compliance obligations?		
					Method: *Ask for and review documentation to confirm this and discuss with Team Leader the process for developing and monitoring* **.**		
4.3					**Determining the Scope of the OHSM Management System**		
				0	• Has the organization determined the scope and boundaries of the management system, considering: ○ The external and internal issues; ○ Compliance obligations; ○ Organizational unit(s), functions and physical boundaries; ○ Its activities, products and services; ○ Its authority & ability to exercise control & influence.		
					Method: *Interview the EHSMS Lead and ask how the scope was determined.*		
				0	• Is the scope maintained as documented information?		
	0			0	• Is the scope available to interested parties?		
					Method: *Ask for and review Scope; ask how it was developed, and ask if or how it is made available to interested parties.*		
4.4					**Environmental and Occupational Health and Safety Management Systems**		
				0	• Have procedures/processes needed for the EHSMS been identified and their interactions defined?		
				0	• Is there evidence of continual improvements?		

ISO14001:2015 & 45001:2018 Clause #	Scoring for Status of Implementation None 0	Partial 1	Complete 2	Total	14001 and 45001 Requirements	Documented Information Reference	Explanatory Notes and *Actions Needed*
5	**0**	**1**	**2**	**0%**	**Leadership**		
5.1					**Leadership and Commitment** Environmental and Occupational Health and Safety Management Systems		
				0	• Taking overall responsibility and accountability for the prevention of work-related injury and ill health, as well as provision		
				0	•□□□□□□□ Ενσυρινγ τηατ τηε ΕΗΣΜΣ ανδ Ενϖιρονμενταλ πολιχιεσ ανδ οβφεχτιϖεσ αρε εσταβλισηεδ ανδ αρε χομπατιβλε ωιτη τηε στρατεγιχ διρεχτιον οφ τηε		
				0	• Ensuring the integration of the EHSMS requirements into the organization's business processes?		
				0	• Ensuring that the resources needed for the EHSMS are available?		
				0	• Communicating the importance of effective EHSMS and of conforming to its requirements?		
				0	• Ensuring that the EHSMS achieves its intended outcomes?		
				0	• Directing and supporting workers to contribute to the effectiveness of the EHSMS?		
				0	• Ensuring continual improvements?		
				0	• Supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility?		
				0	• Developing, leading and promoting a culture in the organization that supports the intended outcomes of the EHSMS?		
				0	• protecting workers from reprisals when reporting incidents, hazards, risks and opportunities?		
				0	• Ensuring the establishment/implementation of a process(es) for consultation and participation of workers?		
				0	• Supporting the establishment and functioning of health and safety committee?		
					Method: Ask team members how this has been shown. Interview senior management and ask about above responsibilities and how they believe the EHSMS is improving the organizations EHS performance. Review Scope; ask how it is made available to interested parties.		
5.2					**Environmental and OHS Policy** Has senior management established an Environmental and Safey policy that		
				0	•□□□□□□□ Ινχλυδεσ α χομμιτμεντ το προϖιδε σαφε ανδ ηεαλτηψ ωορκινγ χονδιτιονσ φορ τηε πρεσεντιον οφ ωορκ ρελατεδ ινφυρψ ανδ ιλλ ηεαλτη ανδ ισ αππροπριατε το τηε πυρποσε, σιζε ανδ χοντεξτ οφ τηε οργανιζατιον ανδ το τηε σπεχιφιχ νατυρε οφ ιτσ ΕΗΣΜΣ ρισκσ ανδ οππορτυνιτιεσ?		
				0	• Provides a framework for setting EHS objectives?		
				0	• Includes a commitment to fulfil legal and other requirements?		
				0	• Includes a commitment to eliminate hazards and reduce EHS risks?		
				0	• Includes a commitment to continual improvement?		
				0	• Is maintained as documented information?		
				0	• Is communicated within the organization?		
				0	• Is available to interested parties?		
					Method: *Review Policy and check that it does all bulleted items above. Ask how it is communicated within the organization and how it is made available to interested parties.*		

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	None 0	Partial 1	Complete 2	Total			
5.3					**Organizational Roles, Responsibilities and Authorities**		
				0	Does top management ensure that the responsibilities and authorities for relevant roles within the EHSMS management system are assigned, available as documented information, communicated and understood at all levels within the organization?		
				0	Do workers assume responsibility for those aspects of the EHSMS management system for which they have control?		
				0	Has top management assigned the responsibility and authority for ensuring that the EHSMS management system conforms to the requirements of ISO 45001 and 14001?		
				0	Has top management assigned the responsibility and authority for reporting on the performance of the EHSMS management system to top management?		
					Method: Interview the organization management and ask how they assigned responsibility to develop the EHSMS. Interview team leader and ask how this is communicated within the organization.		
5.4					**Consultation and of workers**		
				0	Has your organization established, implemented and maintained a process (es) for consultation and participation of workers at all applicable levels and functions, and where they exist, workers representatives, in the development, performance evaluation and actions for improvement of the EHSMS?		
					Does the organization		
				0	• Provide mechanisms, time, training and resources necessary for consultation and participation?		
				0	· Provide timely access to clear, understandable and relevant information about the EHSMS?		
				0	· Determine and remove obstacles or barriers to participation and minimize those that cannot be removed?		
				0	Does the organization emphasize the consultation of non-managerial workers on the following: 1. Determining the needs and expectations of interested parties? 2. Establishing the EHSMS policy? 3. Assigning organizational roles, responsibilities and authorities, as applicable? 4. Determining how to fulfil legal and other requirements? 5. Establish and plan to achieve EHSMS objectives? 6. Determining applicable controls for outsourcing, procurement and contractors? 7. Determining what needs to be monitored, measured and evaluated? 8. Planning, establishing, implementing and maintaining an audit programmed? 9. Ensuring continual improvement?		

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				0	Does the organization emphasize participation of non-managerial workers in the following: 1. Determining the mechanisms for their consultation and participation? 2. Identifying hazards and assessing risks and opportunities? 3. Determining actions to eliminate hazards and reduce EHSMS risks? 4. Determining competence requirements, training needs, training, and evaluating training? 5. Determining what needs to be communicated and how it is to be done? 6. Determining control measures and their effective implementation and use? 7. Investigating incidents and nonconformities and determine corrective action?		
6	**0**	**1**	**2**	**0%**	**Planning**		
					General		
					When planning for the EHSMS, has the organization considered the context of organization, scope of the EHSMS, and determined risks/opportunities related to 4.1, 4.2 and 4.3 that need to be addressed?		
				0	· Give assurance that the EHSMS management system can achieve its intended outcomes?		
				0	• Prevent, or reduce, undesired effects?		
				0	• Achieve continual improvement?		
6.1.1				0	When determining the risks and opportunities for the EHSMS management system and its intended outcome has the organization taken into account: • Hazards • EHSMS risks and other risks • EHSMS opportunities and other opportunities • Legal and other requirements?		
				0	Has your organization in its planning process determined and assessed the risks and opportunities relevant to the intended outcomes of the EHSMS system associated with planned changes permanent or temporary before the change is implemented?		
				0	Does your organization maintain documented information on: • Risks and opportunities? • The process and actions needed to determine and address its risks and opportunities to the extent necessary to have confidence that they are carried out as planned?		
					Method: *Interview team members to determine how these requirements are met. Ask to see documentation if appropriate.*		

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	None 0	Partial 1	Complete 2	Total			
6.1.2					**Environmental Aspects**		
				0	Have environmental aspects of activities, products and services been determined?		
				0	Have significant environmental aspects (SEAs) been identified using established criteria?		
				0	Have SEAs been communicated?		
				0	Is documented information retained for the environmental aspects and impacts, including those that are significant?		
					Method: *Interview team members and verify that environmental aspect list exists, and that SEAs have been identified. Also ask how the SEAs have been communicated to the organization staff.* *Review the Environmental Aspect procedure/process and ensure that SEAs were determined using the method in the procedure. The following should be documented: Environmental aspects and impacts, SEAs, the criteria used to identify SEAs.*		
					Hazard Identification and assessment of risks and opportunities **Hazard Identification** Has the organization established, implemented and maintained a process(s) for hazard identification that is ongoing and proactive? Do the processes take into account, but not be limited to:		
				0	• how work is organized, social factors (including workload, work hours, victimization, harassment and bullying) leadership and the culture of the organization?		
				0	• routine and non-routine activities and situations, including hazards arising from: 1. infrastructure, equipment, materials, substances and the physical conditions of the workplace? 2. product and service design, research, development, testing, production, assembly, construction, service delivery, maintenance and disposal? 3. human factors? 4. how work is performed?		
				0	• past relevant incidents, internal or external to the organization, including emergencies, and there causes?		
				0	• potential emergency situations?		
6.1.2.1				0	• people, including consideration off: 1. those with access to the workplace and their activities, including workers, contractors, visitors and other persons? 2. those in the vicinity of the workplace who can be affected by the activities of the organisation? 3. workers at a location not under the direct control of the organization?		

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				0	• other issues, including consideration of: 1. the design of work areas, processes, installations, machinery/equipment, operating procedures and work organization, including their adaptation to the needs and capabilities of the workers involved? 2. situations occurring in the vicinity of the workplace caused by work-related activities under the control of the organization? 3. Situations not controlled by the organiation and occurring in the vicinity of the workplace that can cause injury and ill health to persons in the workplace?		
				0	· actual or proposed changes in organization, operations, processes, activities and the EHSMS?		
				0	• changes in knowledge of, and information about, hazards?		
					Method: *Interview team members and verify that hazard identification is going on as required.* *Review hazard identification procedures/processes.*		
6.1.2.2					**Assessment of EHSMS risks and other risks to the EHSMS** Has the organization established, implemented and maintained a process to:		
				0	· assess EHSMS risks from the identified hazards, while taking into account the effectiveness of existing controls?		
				0	· determine and assess the other risks related to the establishment, implementation, operation and maintenance of the EHSMS?		
				0	Has the organization's methodologies and criteria for the assessment of EHSMS risks been defined with respect to the scope, nature and timing to ensure they are proactive rather than reactive and are used in a systematic way?		
				0	Does the organization maintain and retain documented information on the methodologies and criteria?		
					Method: Interview team members and verify that EHSMS risk processes exist and meet the requirements. Review the associated documentation.		
6.1.2.3					**Assessment of EHSMS opportunities and other opportunities for the EHSMS** Has the organization established, implemented and maintained processes to assess:		
				0	· EHSMS opportunities to enhance EHSMS performance, while taking into account planned changes to the organization, its policies, its processes and its activities and: 1. opportunities to adapt work, work organization and work environment to workers? 2. Opportunities to eliminate hazards and reduce EHSMS risks?		
				0	· Other opportunities for improving the EHSMS?		
					Method: Interview team members and ask about EHSMS opportunities		
					Determination of legal requirements and other requirements Has the organization established, implemented and maintained processes to:		
				0	· determine and have access to up to date legal requirements and other requirements that are applicable to the hazards, EHSMS risks and the EHSMS?		
				0	• determine how these legal requirements and other requirements apply to the organization and what needs to be communicated?		

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6.1.3				0	· take legal and other requirements into account when establishing implementing, maintaining and continually improving its EHSMS?		
				0	Does the organization maintain and retain information on its legal and other requirements?		
				0	How does the organization ensure its legal requirements are up to date and reflect any changes?		
					Method: *Interview team members to ascertain if legal and other requirements have been determined for all activities that they engage in and are applicable? Ask how the organization stays abreast of compliance obligations and ensures that the documentation of the obligations is kept and kept up to date.* *Review the Compliance Obligation procedure/process and verify that it is being followed. Documentation of the COs is required.*		
6.14					**Planning Action** *Does the organization's plan include:*		
				0	• Actions to address these risks and opportunities, address legal and other requirements and prepare for and respond to emergency situations?		
				0	· How to integrate and implement the actions into its EHSMS processes or other business processes?		
				0	Has the organization taken into account the hierarchy of controls and outputs and outputs from EHSMS when planning to take action?		
				0	Does the organization take into account best practice, technological options and financial, operational and business requirements when planning its actions?		
					Method: *Ask to see evidence of how the organization's plan addresses risks and opportunities, legal requirements and prepare/respond to emergencies. Ask how they integrate these processes into their regular business processes.*		
6.2					**EHSMS Objectives and Planning to Achieve Them** **OS&H Objectives**		
				0	Has your organization established EHSMS objectives at relevant functions, levels that are needed to maintain and continually improve the EHSMS?		
6.2.1					Are the EHSMS objectives:		
				0	· Consistent with the EHSMS policy?		
				0	• measurable or capable of performance evaluation?		
				0	• take into account applicable requirements, the results of the assessment of risks and opportunities and the results of consultation with worker and workers representatives?		
				0	• monitored?		
				0	• communicated?		
				0	• updated as appropriate?		
				0	Do you maintain and retain documented information on the EHSMS objectives?		
					Method: Ask how EHSMS objectives were determined and ask to see documentation. *Review the EHSMS Objectives procedure/process and verify that it is being followed.*		
					Planning Actions to Achieve EHSMS Objectives When planning how to achieve your EHSMS objectives, has your organization determined:		
				0	• What will be done?		

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6.2.2				0	• What resources are required?		
				0	• Who has responsibility?		
				0	• When it will be completed?		
				0	• How results will be evaluated, including indicators for monitoring progress toward achievement?		
				0	• Has the organization considered how actions to achieve its EHSMS objectives can be integrated into the organizations business processes?		
				0	Do you maintain and retain documented information on the EHSMS objectives?		
					Method: *Ask to see documented information and verify that it does the above. Ask how the team considered integration into the organization's business processes.*		
7	**0**	**1**	**2**	**0%**	**Support**		
7.1					**Resources**		
				0	Has the organization determined and provided the resources needed for the establishment, implementation, maintenance and continual improvement of the EHSMS?		
					Method: *Interview both the organization management and EHSMS team to determine how they provide resources and if communication between the organization management and the EHSMS team is adequate to ensure continual improvement.*		
7.2					**Competence (Training)**		
					Has the organization:		
				0	• determined the necessary competence of workers that affects the performance and effectiveness of the EHSMS?		
				0	• ensured that these workers are competent (including the ability to ID hazards) on the basis of appropriate education, training or experience?		
				0	• where applicable, taken actions to acquire and maintain the necessary competence, and evaluated the effectiveness of the actions taken?		
				0	• retained appropriate documented information as evidence of competence?		
					Method: *Ask how the organization determines and ensures competent staff? What records/documented information is kept?*		
7.3					**Awareness**		
					Has the organization ensured awareness of workers of:		
				0	• The EHSMS policy?		
				0	• Their contribution to the effectiveness of the EHSMS including the benefits of improved EHSMS performance?		
				0	• the implications of not conforming to the EHSMS requirements?		
				0	• Incidents and the outcomes of investigations that are relevant to them?		
				0	• hazards, EHSMS risks and actions determined that are relevant to them?		
				0	• the ability to remove themselves from work situations that they consider present an imminent and serious danger to their life or health, as well as the arrangements for protecting them from undue consequences for doing so?		
					Method: *Ask how the organization ensures that workers are made aware of these items (e.g., training, posters, newsletters). Also, randomly, interview workers to ensure the information/training is effective.*		
7.4					**Communication**		
7.4.1					**Communication General**		
					How have you determined the internal and external communications relevant to the EHSMS management system, including:		

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				0	• On what it will communicate?		
				0	• When to communicate?		
				0	• with whom to communicate: 1. Internally among the various levels and functions of the organisation? 2. Among contractors and visitors to the workplace? 3. Among other interested parties?		
				0	• how to communicate		
				0	How does the organization take into account diversity (Gender, language, culture, literacy, disability) aspects when considering communication needs?		
				0	How are the views of interested parties considered in establishing communication processes?		
				0	In establishing communication processes has legal and other requirements been taken into account and that the information is consistent with other information generated from the system and reliable?		
				0	Who responds to relevant communications on its EHSMS?		
				0	In what form is documented information retained as evidence of communications?		
					Method: *Ask to see the Communication procedure or ask what their procedures are and verify that they are being followed. Verify above processes are in place and ask to see any documentation.*		
7.4.2					**Internal Communication**		
				0	Has the organization ensured internally communicated information is relevant to the EHSMS among various levels and functions of the organization. Does it include changes to the EHSMS?		
				0	Has the organization ensured that workers are able to contribute to continual improvement?		
					Method: *Ask team members how the organization communicates EHSMS information and ensures if consistent and reliable, and how they gather information from workers. Ask to see documentation.* *Also, randomly interview contractor and employees to determine if they are aware of how to contribute ideas to improve the organization's EHSMS performance.*		
7.4.3					**External Communication**		
				0	Has the organization got an external communication process?		
				0	How does external communication of EHSMS information take into account legal and other requirements?		
					Method: *Verify via interviews, that the external communication procedures are being followed.*		
7.5					**Documented Information General**		
				0	Does your organization's EHSMS include documented information required by ISO45001?		
7.5.1				0	Does the EHSMS identify documented information determined by the organization to be necessary for the effectiveness of the EHSMS?		
7.5.2					Creating and updating - when creating and updating documented information, has the organization ensured appropriate:		
				0	• identification and description (e.g. title, date, reference number)?		
				0	• format (e.g. language, software) and media (e.g. paper, electronic)?		
				0	• review and approval for suitability and adequacy?		

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					Method: *Ask to see the Documented Information procedure and verify that it is being followed.*		
7.5.3					**Control of Documented Information** Is documented information controlled to ensure:		
				0	• Availability and suitability for use, where and when it is needed?		
				0	• Adequate protection?		
				0	• Distribution, access, retrieval and use?		
				0	• Storage and preservation?		
				0	• Control of changes?		
				0	• Retention and disposition?		
				0	• Have documents of external origin been identified and controlled?		
				0	Documented information of external origin determined by the organization to be necessary for the planning and operation of the EHSMS shall be identified, as appropriate, and controlled.		
					Method: *Ask to see some examples of different types of documented information and determine that they can meet the above requirements.*		
8	**0**	**1**	**2**	**0%**	**Operation**		
8.1					**Operational Planning and Control** **General**		
8.1.1					Does your organization plan, implement and control the processes (see 4.4) needed to meet the requirements of the EHSMS and to implement the actions determined in Clause 6 by:		
				0	• establishing criteria for the processes?		
				0	• implementing control of the processes in accordance with the criteria?		
				0	• maintaining and keeping documented information to the extent necessary to have confidence that processes are being carried out as planned?		
				0	• adapting to workers?		
				0	How does your organization coordinate the relevant parts of EHSMS with other organizations in multi-employer situations?		
				0	How does your organization ensure that outsourced processes are controlled (see 8.4)?		
8.1.2					**Eliminating hazards and reducing EHSMS risks** Has the organization established, implemented and maintained processes for the elimination of hazards and reduction of EHSMS risks using the following hierarchy of controls:		
				0	• eliminate the hazard?		
				0	· substitute with less hazardous process, operations, materials or equipment?		
				0	· use engineering controls and reorganization of work?		
				0	· use administration controls, including training?		
				0	· use adequate personal protective equipment?		
					Method: *Discuss with staff what he process is for eliminating hazards and reducing risks are. Have them identify some controls in place and verify if they are being followed. (e.g., work instructions, SOPs, engineered controls, etc.) Ask how they control planned changes and mitigate adverse effects? Ask how they ensure that outsourced processes are controlled or influenced as required?*		
8.1.3					**Management of Change** Has the organization established processes for the implementation and control of planned temporary and permanent changes that impact performance including:		
				0	• new products, services and processes, or changes to existing products, services and processes, including: • workplace locations and surroundings? • working organization? • working conditions? • Equipment? • work force?		
				0	• changes to legal requirements and other requirements?		

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	None 0	Partial 1	Complete 2	Total			
				0	• changes to knowledge or information about hazards and EHSMS risks?		
				0	• developments in knowledge and technology?		
				0	Does the organization review the consequences of unintended changes, taking action to mitigate any adverse effects, as necessary?		
					Method: Discuss with staff how they deal with management of change and if/how they review the consequences of unintended changes, and mitigate affects.		
8.1.4					**Procurement**		
				0	General. Has the organization established, implemented and maintained processes to control the procurement of products and services in order to ensure their conformity to its EHSMS?		
8.1.4.1					***Method:*** *Discuss with procurement and other staff what the processes are that are used.*		
					Contractors		
					Does the organization coordinate its procurement process(es) with its cntractors, in order to identify hazards and to assess and control the EHSMS risk arising from:		
				0	• the contractors' activities and operations that impact the organization?		
8.1.4.2				0	• the organisation's activities and operations that impact the contractors workers?		
				0	• the contractors' activities and operations that impact other interested parties in the workplace?		
				0	How does the organization ensure that the requirements of its EHSMS are met by contractors and their workers?		
				0	Does the organization's procurement processes define and apply EHSMS criteria for the selection of contractors?		
					Method: Discuss with procurement and other staff what the processes are that are used.		
					Outsourcing		
				0	How does the organization ensure outsourced functions and processes are controlled?		
8.1.4.3				0	Does the organization ensure that its outsourcing arrangements are consistent with legal requirements and other requirements and with achieving the intended outcomes of the EHSMS?		
				0	Has the type and degree of control to be applied to these functions and processes been defined within the EHSMS?		
					Method: Discuss with procurement and other staff what the processes are that are used.		
					Emergency Preparedness and Response		
					Has the organization established, implemented and maintained the processes needed to prepare for and respond to potential emergency situations identified in 6.1.2.1 and do they include?		
				0	• establishing a planned response to emergency situations including provision of first aid?		
				0	• providing training for the planned response?		
				0	• periodically testing and exercising the planned response capability?		
				0	• evaluating performance and as necessary, revising the planned response, including after testing and in particular after the occurrence of an emergency situation?		
8.2				0	• communicating and providing relevant information to all workers on their duties and responsibilities?		
				0	• communicating relevant information to contractors, visitors, emergency response services, government authorities, and as appropriate local community?		

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				0	• taking into account the needs and capabilities of all relevant interested parties and ensuring their involvement, as appropriate, in the development of the planned response?		
				0	Has the organization maintained documented information on the process and on the plans for responding to potential emergency situations? ***Method:*** *Ask to see Emergency Preparedness and Response procedures and verify that they are being followed. Ask to see documented information (Plans, records of drills, training, etc.).*		
9	**0**	**1**	**2**	**0%**	**Performance Evaluation**		
9.1 9.1.1					**Monitoring, Measurement, Analysis and Evaluation (M/M)** **General** Has the organization established, implemented and maintained processes for monitoring, measurement analysis and performance evaluation? How does your organization determine:		
				0	• What needs to be monitored and measured? 1. the extent to which legal requirements and other requirements are met? 2. its activities and operations related to identified hazards, risks, and opportunities? 3. progress towards achieving EHSMS objective? 4. effectiveness of operational and other controls?		
				0	• The methods for monitoring, measurement, analysis and evaluation to ensure valid results?		
				0	• The criteria against which the organization will evaluate its EHSMS performance, and appropriate indicators?		
				0	• When monitoring and measuring shall be performed?		
				0	• When the results from monitoring and measurement will be analysed and evaluated and communicated?		
				0	How does your organization evaluate the performance and the effectiveness of the EHSMS?		
				0	How does the organization ensure that monitoring and measuring equipment is calibrated or verified as applicable, and used and maintained as appropriate?		
				0	Are you maintaining documented information and in what form as evidence of the monitoring, measurement, analysis and performance evaluation and maintenance, calibration or verification of measuring equipment?		
					Method: *Review the Monitoring and Measurement Procedure(s) and verify that they are being followed, including that they are monitoring/measuring:* • its activities and operations related to identified hazards, risks, and opportunities • Environmental and Safety Objectives • Legal requirements • Monitoring and Measurement Equipment • Effectiveness of controls? • Corrective Actions and Audit Findings ***Method*** *: Interview staff and determine what is being monitored or measured, and select items to verify. Ask to see the associated documented information (inspection records, etc.) and verify it is documented.*		
					Evaluation of Compliance Has the organization established, implemented and maintained the processes needed to evaluate fulfilment of its legal and other requirements, including:		
				0	• Determining the frequency that compliance will be evaluated?		

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9.1.2				0	• Evaluating compliance and taking action if needed?		
				0	• Maintained knowledge and understanding of its compliance status?		
				0	Has the organization retained documented information as evidence of the compliance evaluation results?		
9.2 9.2.1					***Method:*** *Review the Evaluation of Compliance Procedure and verify that it is being followed, including the monitoring of any inspections, internal/external compliance audits and corrective actions.* • Facility Environmental Inspections • Internal or External Compliance Audits and corrective actions **Internal Audit General** Has the organization conducted internal audits at planned intervals to determine if the EHSMS:		
				0	• Conforms to its own requirements for its EHSMS including the policy and objectives?		
				0	• Is effectively implemented and maintained?		
					Method: *Ask to see the most recent internal audit and ensure that it follows the Internal Audit procedure.*		
9.2.2					**Internal Audit Program**		
				0	Has the organization established, implemented and maintained an internal audit program, including the frequency, methods, responsibilities, planning requirements and reporting , which takes into consideration the importance of processes concerned, and results of previous audits? Of its internal audits?		
					Has the organization:		
				0	• Defined the audit criteria and scope for each audit?		
				0	• Selected auditors and conducted audits to ensure objectivity and impartiality of the audit process?		
				0	• Ensured that the results of audits are reported to relevant management?		
				0	Has the organization taken action to address nonconformity and continually improve its EHSMS audit programme and the audit results?		
				0	Has the organization retained documented information as evidence of the implementation of the audit program and the audit results?		
					Method: *Review the Internal Audit Procedure and verify that it considers the above items that it is being followed. Verify audit documentation is being kept as indicated. If the organization is new to EHSMS, how do they currently audit/check on the efficacy of their EHSMS?*		
					Management Review		
				0	Has the organization management reviewed the organization's EHSMS at planned intervals to ensure its continuing suitability, adequacy and effectiveness?		
					Have management reviews considered:		
				0	• The status of actions from previous management reviews?		
					• Changes in:		
				0	o External and internal issues relevant to the EHSMS?		
				0	o The needs and expectations of interested parties, including compliance obligations?		
				0	○ Risks and opportunities?		
				0	• The extent to which Environmental and Safety policies and objectives have been achieved?		
					• Information on the organizations EHSMS performance, including trends in:		

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9.3				0	o Incident nonconformities and corrective actions and continual improvement? o Monitoring and measurement results? o Fulfilment of its compliance obligations? o Audit results? o Consultation and participation of workers? o Risks and Opportunities? • Adequacy of resources? • Relevant communications from interested parties? • Opportunities for continual improvement? ***Method:*** *Review the Management Review documented information (meeting minutes, briefing slides, etc., and determine if all of the above (at a minimum) were included).* Have the **outputs** of the management review process included: • Conclusions on the continuing suitability, adequacy and effectiveness of the EHSMS? • Decisions related to continual improvement opportunities? • Decisions related to any need for changes to the EHSMS, including resources? • Actions, if needed, when EHSMS objectives have not been achieved? • Opportunities to improve integration of the EHSMS with other business processes, if needed? • Any implications for the strategic direction of the organization? Are the relevant outputs from management review communicated to workers and where they exist, workers representatives? Has the organization retained documented information as evidence of the results of management reviews? ***Method:*** *Review the Management Review documented information (meeting minutes, or summary) and determine if all of the above (at a minimum) were addressed as outputs. Also review the Management Review Procedure to verify it included the required inputs and outputs. Ask how information is communicated to workers.* *If just starting EHSMS, how do they currently discuss EHSMS performance, EHSMS, etc. with senior management?*		
10	**0**	**1**	**2**	**0%**	**Improvement**		
10.1				0	**General Improvement** **Has the organization has determined opportunities for improvement (see 9.1, 9.2 and 9.3) and implemented necessary actions to achieve the intended outcomes of its EHSMS.**		
					Nonconformity and Corrective Action When a nonconformity has occurred has the organization: • Reacted to the nonconformity and, as applicable: o Taken action to control and correct it? o Dealt with the consequences, including mitigating adverse EHSMS impacts? • Evaluated, with the participation of workers and the involvement of other relevant interested parties, the need for action to eliminate the causes of the nonconformity, in order that it does not recur or occur elsewhere, by: o Investigating the incident or reviewing the nonconformity? o Determining the causes of the incident or nonconformity? o Determining if similar incidents have occurred, if nonconformities exist, or could potentially occur? • Implemented any action needed, including corrective action, in accordance with the hierarchy of controls and the management of change?		

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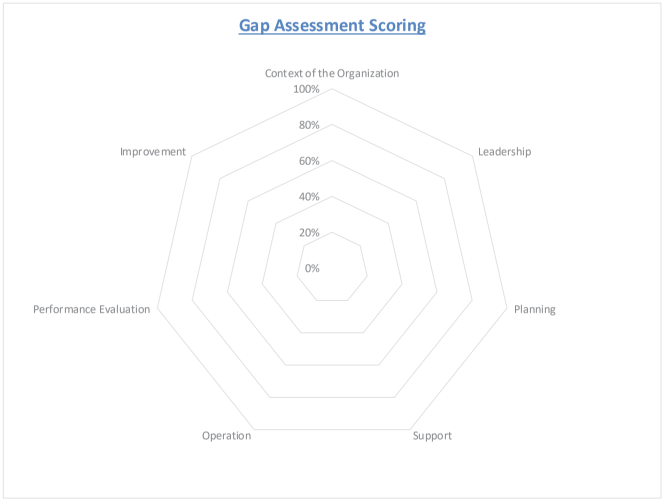
10.2				0	• Assessed EHSMS risks that related to new or changed hazards, prior to taking action?		
				0	• Reviewed the effectiveness of any corrective action taken?		
				0	• Made changes to the EHSMS, if necessary?		
					Does your organization take corrective actions appropriate to the effects or potential effects of the incidents or nonconformities encountered?		
					Has documented information been retained as evidence of:		
				0	• The nature of the incidents or nonconformities and any subsequent actions taken?		
				0	• The results of any corrective actions including the effectiveness?		
				0	Is this information communicated to relevant workers, and, where applicable, workers representatives, and other interested parties?		
					Method: *Review the Nonconformity and Corrective Action Procedure and determine that it addresses the above items.*		
					Review the most recent audit results and any corrective actions written and verify that it is written in accordance with the procedure. Check that it was followed and appropriately closed.		
					If just starting EHSMS, how do they currently correct EHSMS issues that are discovered? Do they document this? Communicate them, including to workers?		
10.3					**Continual improvement**		
				0	Has the organization continually improved the suitability, adequacy and effectiveness of the EHSMS to enhance EHSMS performance?		
				0	Does your organization enhance EHSMS performance, and how?		
				0	Does your organization promote a culture that supports the EHSMS and how?		
				0	Does your organization promote the participation of workers in implementing actions for continual improvement of the EHSMS, and how?		
				0	Does your organization communicate the results of continual improvement to workers and if appropriate, workers representatives and how?		
				0	Does your organization maintain and retain documented information as evidence of continual improvement and how?		
					Method: *Interview the organization management and EHSMS team members and ask how they believe the EHSMS exhibits continual improvement in the organization's EHSMS performance. Review available documentation.*		
					If just starting EHSMS, how do they currently monitor continual improvement in EHSMS with the EHSMS? Do they document this? Communicate about this?		

Gap Assessment Scoring



	CHECKLIST SECTION	SECTION SCORE
4	**Context of the Organization**	0%
5	**Leadership**	0%
6	**Planning**	0%
7	**Support**	0%
8	**Operation**	0%
9	**Performance Evaluation**	0%
10	**Improvement**	0%

Scoring represents ISO 45001 like processes that are not-implemented (0%) to those that are implemented and sustained (100%)

0

	CHECKLIST ITEM	SCORE
4.1	Understanding the organization and its context	0%
4.2	Understanding the needs and expectations of interested parties	0%
4.3	Determining the scope of the environmental management system	0%
4.4	OHSMS	0%

5.1	Leadership and commitment	0%
5.2	OH&S policy	0%
5.3	Organizational Roles and Responsibilities	0%
5.4	Consultation of Workers	0%

6.1.1	General	0%
6.1.2	Hazards identification and assessment of risks and opportunties	0%
6.1.3	Compliance obligations/Legal requirements	0%
6.1.4	Planning Action	0%
6.2.	OH&S objectives and planning to achieve them	0%

7.1	Resources	0%
7.2	Competence	0%
7.3	Awareness	0%
7.4.1	Communication - General	0%
7.4.2	Internal Communication	0%
7.4.3	External Communication	0%
7.5.1	Documented Information - General	0%
7.5.2	Creating and Updating	0%
7.5.3	Control of Documented Information	0%

	CHECKLIST ITEM	SCORE
8.1.1	Operational planning and control	0%
8.1.2	Eliminating hazrds and reducitn OH&S risks	0%
8.1.3	Management of change	0%
8.1.4	Procurement	0%
8.2	Emergency preparedness and response	0%

9.1.1	General	0%
9.1.2	Evaluation of Compliance*	0%
9.2.1 (2)	Internal Audit Program	0%
9.3	Management Review	0%

10.1	Improvement - General	0%
10.2	Incident, Noncomformity and Corrective Action	0%
10.3	Continual Improvement	0%

ENVIRONMENTAL, HEALTH, AND SAFETY (EH&S) AUDIT CHECKLIST

(A negative answer to any of the questions indicates an area of safety or health concern)

FACILITY:_____ **DATE:**_____

INSPECTOR:_____

	AISLES/EXITS/EGRESS	YES	NO	N/A
1	Are all exit routes at least 28 inches wide?			
2	Are exits marked, free of debris and readily accessible at all times?			
3	Is emergency lighting operating? (Test by using test button if you can do so from the ground or floor.)			
4	Are emergency exit route maps posted?			
5	Can you see marked exits or exit signs from the aisles in your area?			
6	Are aisles and doorways kept clear; and free of obstructions with trip hazards minimized to permit visibility and movement?			
7	Are doors not used for egress (closets, offices, etc.) that could incorrectly be thought to be an exit labeled "NOT AN EXIT?"			
8	Are floor surfaces clean, dry, level, not slippery or sticky and in good condition?			
9	Are floor openings guarded by a cover, guardrail, or equivalent on all sides?			
	COMPRESSED GAS CYLINDERS			
10	Are cylinders legibly marked to clearly identify the gas contained?			
11	Are cylinders stored away from heat source and do they have separation between flammables and oxidizers?			
12	Are cylinders located or stored in a manner to prevent them from creating a hazard by tripping, falling, or rolling? The cylinders should be stored upright and chained with protective cap in place (including empty containers).			
13	Are cylinders kept away from elevators, stairs, or gangways?			
14	Are cylinders kept away from sources of heat?			
15	Are valve protector caps placed on cylinders when not in use?			
	WELDING, CUTTING, AND BRAZING			
17	Are arc-welding cables intact with no damaged insulation or exposed conductors?			
18	Are only approved apparatus (torches, regulators, pressure-reducing valves, acetylene generators, manifolds) used?			
19	Is an inspection made to ensure adequate ventilation where welding or cutting is conducted?			
20	Are hot-work permits required in areas not designed for regular hot work?			
	FIRST AID KITS/EYE WASH STATIONS/SAFETY SHOWERS			
21	Are medically approved first-aid kits and sharps containers adequately supplied?			
22	Are all dated medical products current, and not expired?			

23	Are quick-drenching showers and eye-flushing stations available where corrosive liquids or materials are handled?			
24	Are the eye wash stations and safety showers inspected at least monthly?			
25	Is the fluid changed in the tank-type eye wash stations at least every 6 months?			
	FIRE PROTECTION			
26	Are fire extinguishers fully charged and have current monthly visual inspection dates? All previous months should be signed off.			
27	Do all fire extinguishers have current annual inspections?			
28	Are safety pins and plastic secondary wraps in place and unbroken on all extinguishers?			
29	Are fire extinguishers and hoses, mounted, visible, and accessible?			
30	Are designated employees trained or educated annually in the use of fire extinguisher?			
31	Can fire extinguishers be located readily? Are signs needed to point them out?			
32	Is there a minimum 18 inches clearance between storage and sprinkler heads?			
33	Are “NO SMOKING” areas enforced?			
34	Are electrical outlets or cords not overloaded? Only allowable number of connections (i.e., a 4-way outlet only has 4 pieces of equipment connected and not loaded with additional extension cords). NOTE: Isolated power not included.			
35	Are fire sprinkler heads unobstructed and free of dirt and corrosion?			
36	Are fire suppression system inspection current (1 year and 5 year)?			
37	Are fire doors and shutters maintained and inspected regularly?			
	FLAMMABLES/COMBUSTIBLES			
38	Are hazardous materials properly stored?			
39	Are chemicals properly stored and returned to appropriate cabinet at end of shift?			
40	Are safety cans in good condition (no corrosion, damage, etc.) with flame arrestor in place?			
41	Are flammable cabinets grounded and containers bonded when dispensing flammable liquids? Only cabinets from which flammable liquids are dispensed need to be grounded.			
42	Are flammable liquids stored in approved safety containers?			
43	Are materials that could burn kept away from ignition sources?			
44	Is area free of excessive trash or combustibles?			
45	Are the tops of the flammable cabinets clear (nothing stored on top)?			
46	Are all flammable bottle tips unmodified and/or undamaged?			
47	Are backflow valves working in all flammable bottles?			
48	Is heat producing equipment turned off at night when no one is present?			
	HOUSEKEEPING/WORK ENVIRONMENT/ELEVATED SURFACES			
49	Are electrical/network cables organized to eliminate trip hazards?			
50	Is knife blade on paper cutter lowered and latched when not in use?			
51	Are spilled or dropped items cleaned up and put away?			
52	Is all lighting lit and/or appear adequate for the task performed?			

53	Are mezzanines labeled with floor load capacity?			
54	Are permanent means of access and egress provided to elevated storage and work surfaces?			
55	Are elevated surfaces that expose people or machinery to falling objects provided with standard, 4-inch (nominal) toe boards?			
56	Is material on elevated surfaces piled, stacked, or racked in a manner to prevent it from tipping, falling, collapsing, rolling, or spreading?			
57	Are guardrails installed where required? (Guardrails are required where there is over 48 inches to next lower level.)			
58	Ceiling tiles are not damaged, loose, or missing?			
59	All overhead hazards have been identified?			
HAZARDOUS/NON-HAZARDOUS WASTE COMPLIANCE				
60	Are hazardous waste containers properly identified and labeled with the words, "HAZARDOUS WASTE?"			
61	Are hazardous waste collection containers fully closed while not in use? Lids that "spring up" are not fully closed.			
62	Are trash cans free of hazardous waste?			
63	Are trash cans free of scrap metal?			
64	Is there less than 55 gallons per waste stream at satellite accumulation area(s)?			
65	Are hazardous waste satellite accumulation area signs in place?			
66	Are employees familiar with the waste materials generated in the work area and the proper disposal method(s)?			
67	Are proper absorbent materials on hand for spills?			
68	Is waste removed in a timely manner (LQG 90 DAYS, SQG 180 DAYS, UNIVERSAL WASTE 365 DAYS)?			
CLEAN AIR AND WATER ACT COMPLIANCE				
69	Are any solvent contaminated rags lying about in the work area?			
70	Are solvent contaminated rags properly disposed of?			
71	Is there no more than 25 gallons of flammable liquids (category 1, 2, 3) stored in a room outside of an approved flammable cabinet?			
72	Are containers, solvent dispensing containers, paint gun cleaning containers, and solvent dispensing bottles closed when not in use?			
75	Are pipes, pumps, hoses, and valves free of leaks or defects?			
76	Do sumps, pits, lift station containment valves remain dry?			
77	Are spills and leaks attended to and reported when required?			
ELECTRICAL EQUIPMENT MARKINGS				
78	Do circuit breakers clearly indicate whether they are in the "ON" or "OFF" position and are switch panels clearly marked?			
79	Are unused openings (including conduit knockouts) in electrical enclosures and fittings protected with appropriate covers, plugs, or plates?			
80	Are disconnecting switches and circuit breakers labeled to indicate their use or equipment served?			
81	Is electrical panel access clear – 36 inches clearance in front of panel?			

82	Is equipment intended for long-term use hard wired into permanent facility wiring?			
	ELECTRICAL GROUNDING			
83	Are electrical appliances, portable electrical tools, and fixed electrical equipment grounded or UL rated/double insulated and in good repair?			
84	Do extension cords being used have a grounding conductor and are in good condition?			
85	Are extension cords used only for temporary wiring applications and not continuous use (put away at end of the shift)?			
86	Are flexible cords not run under doors, into ceilings and through windows and wall openings?			
87	Are power strips not connected in a series (daisy-chained)?			
88	Are ground fault circuit interrupters installed on electrical outlets in bathrooms and other wet or damp areas?			
	EQUIPMENT			
89	Proper guarding of any pinch points, rotating collars, cams, chucks, couplings, shafts flywheels, spindles, bolt ends, rotating mechanisms, etc.?			
90	Are all protective guards (including light curtains and interlocks) in place, effective, and checked daily or before use?			
91	Are all controls and emergency stops clearly identified and within reach of operator?			
92	Are all emergency stops, safety guards, and safety devices located on equipment and tools working and adjusted properly?			
93	Are grinder gaps 1/8 inch from bottom of wheel and 1/4 inch from top of wheel?			
94	Grinding wheel surface not damaged or worn (must be square and no grinding on side of wheel).			
95	Are fan blades protected with a guard having openings no larger than 1/2 inch, when operating within 7 feet of the floor?			
96	Are all fixed machines bolted to the floor?			
97	Do air nozzles have relief valves to decrease pressure to 29 psi or lower?			
98	Air lines and hydraulic lines free of damage?			
99	Are mechanical lifting aids available for heavy or awkward items?			
	LOCKOUT/TAGOUT PROCEDURES			
100	Are equipment-specific lockout/tagout procedures in place for all machines or processes that involve multiple energy sources?			
101	Are all lockout/tagout procedures performed by authorized employees?			
102	Are authorized employees provided individually keyed safety locks?			
103	Are authorized employees required to keep personal control of their key(s) while they have safety locks in use?			
	POWERED INDUSTRIAL TRUCKS			
104	Daily inspection performed prior to first use and log entry completed.			
105	Do all operators have current qualification for each type of PIT they are required to use?			

106	Are service valves closed on all propane equipment left inside overnight?			
107	Is the seatbelt worn while operation of a forklift truck?			
108	Are industrial truck operating rules posted and enforced?			
109	Do industrial trucks have warning horns or other devices that can be clearly heard above normal noise in the areas where they are operated?			
HAZARD COMMUNICATION AND HAZARDOUS CHEMICAL EXPOSURE				
110	Are SDS (safety data sheet) available for each chemical used for specific work areas?			
111	Is each container of hazardous chemicals in the work area properly labeled by identifying the chemical it contains and marked with health hazards?			
112	Is food separated and away from chemicals in the work area?			
113	Are employees prohibited from eating in areas where hazardous chemicals are present?			
114	Are drinks required to be in closed containers only?			
115	Are chemical piping systems clearly marked as to their contents?			
116	Are adequate means readily available for containing spills or overflows properly and safely?			
117	Whenever possible, is vacuuming used to clean up dust, rather than blowing or sweeping?			
HOIST AND AUXILIARY EQUIPMENT				
118	Is the rated load of each hoist legibly marked and visible to the operator?			
119	Are controls of the hoists plainly marked to indicate the direction of travel or motion?			
120	Is each overhead electric hoist equipped with a limit device to stop the hook travel at its highest and lowest points of safe travel?			
121	Are daily pre-use inspections, quarterly periodic inspection, and annual certification inspection completed on cranes and hoisting equipment?			
122	Are hooks with safety latches or other arrangements used when hoisting materials so that slings or load attachments will not accidentally slip off the hoist hooks?			
123	Are hooks in good condition (not stretched, or safety latches in place if manufactured that way)?			
124	Are slings and chains in good condition (no broken or stretched links, no broken threads on slings)?			
125	When hoisting material or equipment, are provisions made to ensure that no one will be passing under the suspended loads?			
126	Are only employees who have been trained in the proper use of hoists allowed to use them?			
LADDERS				
127	Are ladders inspected and maintained in good condition?			
128	Are inspections recorded in writing, either on the ladders themselves or on other written records?			
129	Are non-slip feet provided on each ladder and in good condition?			
130	Are ladder rungs and steps free from oil and grease?			

131	When extension ladders are used, do they extend at least 3 feet above an elevated surface?			
132	Are the manufacturer's load limit and warning stickers easy to read on each ladder?			
133	Are metal ladders marked with easy-to-read signs cautioning against using them around electrical power sources?			
PERSONAL PROTECTIVE EQUIPMENT (PPE)				
134	Are approved safety glasses worn in areas where there is a risk of eye injuries?			
135	Is foot protection required as appropriate?			
136	Are protective gloves, aprons, shields, or other means provided where employees could be cut or where there is reasonably anticipated exposure to corrosive liquids, chemicals, blood, or other potentially infectious materials?			
137	Are there areas in the workplace where continuous noise levels exceed 85 dBA? Has this been documented through sound level meter readings or dosimetry?			
138	For areas with 85 dBA noise levels, is there an ongoing Hearing Conservation Program to monitor noise levels, provide audiometric testing, and educate employees in safe levels of noise exposures, effects of noise on their health, and the use of personal protective equipment?			
139	Is hearing protection provided and enforced in areas exceeding 85dBA?			
RESPIRATORY PROTECTION				
140	Is there a written respiratory protection procedure for the selection and use of respirators where needed?			
141	Are respirator users given periodic medical evaluations to determine their ability to wear respirators?			
142	Are respirator users given annual fit tests?			
143	Are respirator users annually instructed in the correct usage and limitations of the respirators?			
144	Are respirators regularly inspected, cleaned, sanitized, and maintained?			
145	Is voluntary respirator use governed through 1910.134 Appendix D?			
FALL PROTECTION				
146	Is appropriate fall protection provided and used properly (safety harness, lanyard, and if needed, self-retracting lifeline)?			
147	Is fall protection PPE stored properly, kept clean, and out of direct sunlight?			
148	Is fall protection PPE inspected and certified annually?			
EMERGENCY, HEALTH, AND SAFETY INFORMATION				
149	Are area hazard sign visible, legible, understandable and in compliance with regulations?			
150	Are emergency phone numbers posted where they can be readily found?			
151	Are evacuation coordinators assigned and trained on their roles and responsibilities?			

LIST UNSATISFACTORY EH&S CONDITIONS BELOW WITH ASSIGNED OWNER

ITEM NO.	DEFFICIENCY NOTED	CORRECTIVE ACTION	ASSIGNED OWNER	DUE DATE	STATUS	Hazard ID

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Bloom Energy EHSMS Corrective Action

Form DESCRIPTION OF FINDING

Corrective Action #:		Date Issued:	
Requirement:			
(*Check box):* ☐ Nonconformance ☐ Noncompliance			
Corrective Action Issued By:		Corrective Action Assigned To:	
		Corrective Action Due By:	

ROOT CAUSE ANALYSIS

Root Cause Justification (if applicable)	
Root Cause Analysis:	

CORRECTIVE ACTION

Response:	
Supporting Documentation:	

ACCEPTANCE

Additional Self-Assessments Required? ☐ No ☐ Yes

Corrective Action Accepted? ☐ No ☐ Yes

_____ _____

Vice President, Environment and Regulatory Law Date Accepted

Bloom energy

Instructions for Preparing a Corrective Action

Block 1 – Description of Finding. This section records the following information:

a. Corrective Action #: The Corrective Action # will be designated by the Vice President, Environment and Regulatory Law.
b. Date Issued: Enter the date the corrective action request was issued.
c. Requirement: Enter a brief description of the requirement cited in the policy or procedure reference.
d. Nonconformance or noncompliance: Select appropriate box. Enter a detailed description of the nonconformance or noncompliance.
e. Corrective Action Issued By: Enter the name and title of the person issuing the corrective action request.
f. Corrective Action Assigned To: Enter the name of the individual assigned the corrective action.
g. Corrective Action Due By: Enter the deadline for the corrective action.

Block 2 – Root Cause Analysis

Root cause analysis is the most important and sometimes the most difficult part in the corrective action process. The procedure for corrective action shall start with an investigation to determine the root cause(s) of the nonconformance or noncompliance. The self-assessor shall determine what they believe caused the nonconformance or noncompliance and add a brief justification.

The Vice President, Environment and Regulatory Law shall record a detailed description of the root cause analysis, while including any appropriate references and attachments.

Block 3 – Corrective Action

Corrective actions are the steps implemented by the respective office to correct the nonconformance or noncompliance and to prevent its recurrence. Corrective actions shall be appropriate to the magnitude and the risk of the nonconformance or noncompliance. This section shall record a detailed description of the corrective action chosen by the Vice President, Environment and Regulatory Law. In addition, this section shall include all supporting documentation.

Block 4 – Acceptance

All documentation will be provided to the Vice President, Environment and Regulatory Law for review. The Vice President, Environment and Regulatory Law, in consultation with the ESC, if necessary, will determine whether further action is required. If no further action is required. The Vice President, Environment and Regulatory Law will coordinate with the appropriate organization within Bloom Energy (if applicable) for concurrence. This section will be completed as follows:

a. Additional Self-Assessments Required: Check the appropriate box to answer whether additional self-assessments are required (yes or no). If checked "yes", provide reference to additional self-assessment documentation.
b. Corrective Action Accepted: Check the appropriate box (yes or no) to answer whether the corrective action is accepted by the Vice President, Environment and Regulatory Law. If no corrective action is necessary, enter "yes" and indicate "N/A" with brief description under the corrective action section.
c. Signatures and Dates: Pending complete concurrence, the Vice President, Environment and Regulatory Law will sign and date the Corrective Action Template. By signing, the Vice President, Environment and Regulatory Law agrees with all determinations (i.e., cause analysis, corrective action, etc.) and renders the corrective action complete.

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