

Committed to Excellence

Environment, Health, Safety, and Security Policy
Responsible Care Management System®



July 30, 2020

GRACE
Talent | Technology | Trust™

The Grace Environment, Health, Safety, and Security Policy and Responsible Care Management System®, developed pursuant to the American Chemistry Council's Responsible Care® initiative, provide the framework and performance expectations for planning, prioritizing, implementing, measuring, and continually improving our environment, health, safety, and security performance.

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0.0 Establishing a Framework. Setting Expectations

The Grace Environment, Health, Safety, and Security Policy and Responsible Care Management System® guide the company, our operating segments, and our facilities worldwide in systematically managing the environmental, health, safety, process safety, product safety, security, and sustainability (collectively, “EHSS”) aspects of our operations. It demonstrates and documents how EHSS is integrated into Grace business processes and functions such as Human Resources, Integrated Supply Chain, Strategic Planning, Mergers and Acquisitions, and more.

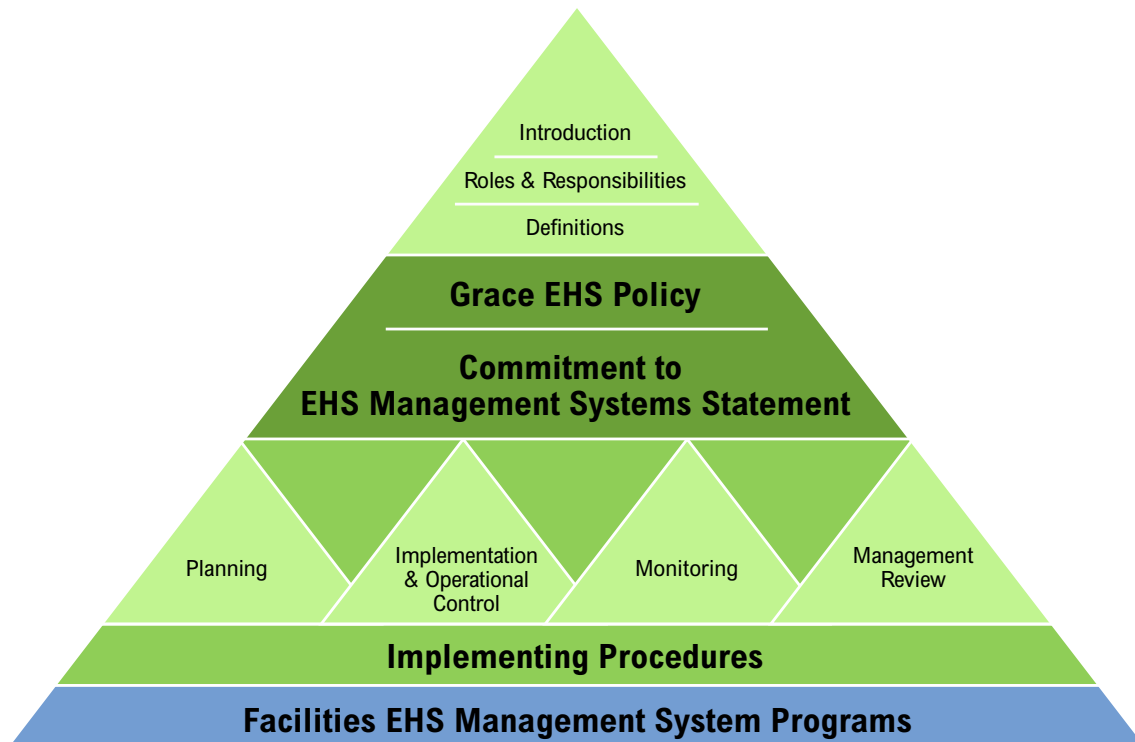
The system sets forth performance expectations that move the organization towards its values of no one hurt, nothing out of place, and no harm from our products by addressing EHSS hazards and risks, training and communication, operational control, goals and target setting, assurance, compliance management, product stewardship, and periodic internal review.

This document sets forth a minimum EHSS performance standards that every Grace location must meet.

The standards are based on the Responsible Care Management System® Technical Specification RC101.04 (RCMS®:2019), and associated Product Safety Code, Process Safety Code, and Security Code, industry best practice, and existing internal performance expectations. The EHSS Management System enables consistent and reproducible performance across all Grace business units and regions.

0.1 Scope

The Responsible Care Management System® (HQ-RCMS) applies to EHSS risks or aspects for business segments and corporate functions at the headquarters.



1.0 Policy and Leadership

1.1 Environment, Health, Safety, and Security Policy

The purpose of Grace's Environment, Health, Safety, and Security Policy is to define the company's commitment to preserve and protect the environment and the health and safety and security of our employees, customers, and communities.

The health and safety of our employees and their families, our customers, and the communities in which we work, and the protection of the environment, are among Grace's most critical concerns.

It is Grace policy to conduct business in compliance with company standards and all applicable health, safety, and environmental laws.

While safe behavior is ultimately the responsibility of each of us, Grace will provide a safe and healthful workplace and will ensure that safety and environment priorities are incorporated in the planning and execution of the company's business.



Hudson La Force
President and Chief Executive Officer
November 8, 2018



1.2 Commitment to Responsible Care®

Chemistry is essential to the products and services that help make our lives safer, healthier, and better. Through the Responsible Care® initiative and the Responsible Care® Global Charter, Grace and the chemistry industry have made a worldwide commitment to continually improve environmental, health, safety, and security performance.

Built on talent, technology, and trust, Grace high-performance specialty chemicals and materials improve the products and processes of our customer partners and enhance the lives of people in more than 150 countries around the world. Throughout the development, manufacture, and delivery of our products and services, Grace adheres to our Responsible Care Management System® and to the following commitments:

- To lead in ethical ways that increasingly benefit society, the economy, and the environment.
- To design and develop products that can be manufactured, transported, used, and disposed of or recycled safely.
- To work with customers, carriers, suppliers, distributors, and contractors to foster the safe and secure use, transport, and disposal of chemicals and to provide hazard and risk information that can be accessed and applied in their operations and products.
- To design and operate facilities in a safe, secure, and environmentally sound manner.
- To instill a culture throughout all levels of our company to continually identify, reduce, and manage process safety risks.
- To promote pollution prevention, minimization of waste, and conservation of energy and other critical resources at every stage of the life cycle of products.



Hudson La Force
President and Chief Executive Officer
November 8, 2018



RESPONSIBLE CARE®
OUR COMMITMENT TO SUSTAINABILITY

- To collaborate with organizations and governments at all levels in the development of effective and efficient safety, health, environmental, and security laws, regulations, and standards.
- To support education and research on the health, safety, environmental effects, and security of products and processes.
- To communicate product, service, and process risks to stakeholders and to listen to and consider their perspectives.
- To make continual progress toward a goal of no accidents, injuries, or harm to human health and the environment from products and operations, and to openly report health, safety, environmental, and security performance.
- To seek continual improvement in the integrated Responsible Care Management System® to address environmental, health, safety, and security performance.
- To promote Responsible Care® by encouraging and assisting other companies to adhere to these guiding principles.

2.0 Planning

2.1 Identification of Hazards and Risks

The company, operating segments, and facilities shall maintain systems to identify, document, and manage significant EHSS hazards and risks associated with its activities, products, and services. Systems shall include:

- Regular assessment of EHSS hazards, their probability of occurrence and severity of outcome;
- Identification and evaluation of hazards and risks associated with operations, distribution, security, and management of product and process information;
- Identification and evaluation of activities associated with operations including operational energy efficiency and waste minimization, reuse and recycling;
- Identification and evaluation of abnormal conditions and reasonably foreseeable emergency conditions;
- Implementation of Management of Change programs applicable to raw materials, products, processes, operations, personnel, facilities, and equipment;
- Assessment of hazards, risks, and opportunity associated with transactions involving real property or other business assets including liabilities, costs of transaction, EHSS integration, and product integrity;
- Assurance that results of internal prioritization process, existing information, and third party assessments are considered and evaluated when maintaining the EHSS Management System;
- Communication of actual and potential EHSS hazards and risks associated with raw materials, processes, operations, and products to employees, distributors, transporters, customers, contractors, and other end users;

2.2 Emerging Concerns

The company, operating segments, and facilities shall maintain current hazard and risk information with respect to emerging health, safety, security, and environmental concerns relevant to its business with respect to its products, processes, and activities associated with its operations.

The company shall maintain a process to evaluate new information that may trigger changes to risk characterizations for its products and product safety management, and communicate such information as appropriate to relevant stakeholders.

2.3 Legal and other Requirements

The company, operating segments, and facilities shall: identify, communicate and comply with applicable EHSS legal and other requirements, and have programs to:

- Identify, understand and communicate applicable EHSS laws, regulations, permits, and other requirements;
- Communicate compliance and other EHSS obligations to employees and others as appropriate to their function;
- Maintain a system to comply with EHSS laws, regulations, permits, and other requirements;
- Maintain appropriate EHSS documents and records consistent with applicable legal and other requirements;
- Track and communicate the consequences of significant emerging EHSS issues;
- Foster open relationships with regulatory agencies;
- Participate in the formulation of laws, regulations, and other requirements to promote sound public policies, as appropriate;
- Manage legacy EHSS issues in a relevant and appropriate manner.

2.4 Stakeholder Perspectives

The company shall identify, assess, and monitor the perspectives of stakeholders identified as material to the company, its operating segments, and facilities.

2.5 Objectives and Targets

Grace has established three core values that drive our management system:

1. No One Hurt
2. Nothing out of Place
3. No Harm from our Products

In support of these goals, the company, operating segments and facilities shall develop objectives, targets and programs to provide for continual improvement in EHSS and business performance. Objectives and targets shall:

- Fulfill our EHSS Policy;
- Fulfill our Commitment to Responsible Care®;
- Consider significant EHSS risks;
- Address regulatory, legal, and other Responsible Care-related requirements;
- Address EHSS risk and opportunity, and improve EHSS performance;
- Take into consideration emerging concerns, business strategy, and stakeholders input
- Measure EHSS and business performance and be tracked and reported to internal and external stakeholders;
- Consider input from the business, stakeholders, and other interested parties.

Programs shall:

- Be developed to achieve objectives and targets;
- Include time frames and resources, and identify responsibility for achieving EHSS and business objectives and targets.



3.0 Implementation and Operational Control

3.1 Documentation

The company maintains control over documents determined as being necessary for the effectiveness of the Responsible Care Management System® and in accordance with internal procedures on the identification, maintenance and disposition of relevant Responsible Care® records.

The company, operating segments, and facilities shall maintain, or have access to, the Responsible Care Management System® and processes that include:

- The Grace EHSS Policy, EHSS Management System Commitment statement, and EHSS Management System document;
- Description of the scope and interaction of the elements of the EHSS Management System;
- Procedures, work instructions, model programs, and other relevant documents that support and demonstrate implementation of the EHSS Management System, as appropriate.

The company, operating segments and facilities shall have programs to control and manage EHSS documents and records including ensuring documents and records are:

- Readily identifiable, legible, dated, retrievable, and periodically reviewed as appropriate;
- Created, modified, and approved by authorized and qualified personnel;
- Maintained in an appropriate manner, and protected, and secured as appropriate;
- Removed and destroyed when determined to be obsolete or archived as appropriate;

3.2 Operational Control

The company, operating segments, and facilities shall establish, implement, control, and maintain systems required to meet our Responsible Care Management System® requirements including at a minimum:

- Establish and maintain policies and procedures to meet our three values of No One Hurt, Nothing Out of Place, and No Harm from our Products.
- Develop effective operating criteria for procedures and processes within the scope of this Management System to address actual and potential hazards and risks;
- Implement processes and programs to ensure compliance with legal and other requirements
- Identify process design, technology, operating parameters, and procedures consistent with generally accepted industry codes of practice and Grace internal standards;
- Implementation of maintenance and inspection programs to ensure facility, equipment, and operational integrity;
- Systems to address emissions reduction, resource conservation, and pollution prevention, as appropriate;
- Purchasing and procurement controls that identify, communicate, and effectively address EHSS risks and requirements to appropriate Grace personnel, suppliers, contractors, toll manufacturers, and contract manufacturers;
- Visitor management programs appropriate to the hazards and risks at every facility;

The company shall establish and maintain systems to manage changes in our products, processes, and activities associated with our operations to ensure:

- Safe operation and maintenance activities;
- Protect the environment and conserve resources;
- Protect worker health;
- Create a safe and secure work environment;

The company shall establish product safety systems to incorporate a formal approval process for all new, modified, and existing Grace products throughout their life cycle.

3.3 Resources, Roles, Responsibility and Authority

The company, operating segments and facilities shall provide resources and define roles, responsibility, and authority necessary to establish, implement, maintain, improve, and review EHSS compliance and the Management System.

This includes:

- Documentation and communication of EHSS roles and responsibilities at all levels;
- Communication of authority and accountability to support, implement, and maintain the EHSS Management System and EHSS compliance;
- Allocation of resources (human, financial, and technological) to meet objectives and targets and to maintain EHSS compliance and the EHSS Management System;

3.4 Competence, Training, and Awareness

The company, operating segments, and facilities shall provide resources and maintain programs for EHSS training, awareness, and competency. Programs shall include:

- Function-specific competence requirements within the scope of this management system, as necessary, for persons doing work under the Company's control that affect Responsible Care® performance; such personnel shall be assessed for competence on the basis of appropriate education, training, or experience;
- Identification, documentation, and implementation of individual EHSS training needs, including specialized training as appropriate;
- A process to review and document the effectiveness of EHSS training and competency;
- Training that addresses location-specific management systems, EHSS programs, procedures, controls, and significant actual or potential EHSS risks;
- Communication on the importance of conformance with the EHSS Policy and Management System and the consequences of non-conformity;
- Maintenance of appropriate EHSS training records.

3.5 Communication

The company, operating segments, and facilities shall have EHSS communication programs that:

- Communicate significant EHSS developments and related matters;
- Engage Grace employees, customers, end users, contractors, distributors, and transporters regarding product EHSS performance, new product uses, identified misuses, potential hazards and risks or adverse effects, and suggestions for improvement;
- Communicate and report relevant EHSS information to external stakeholders and other interested parties;
- Consider formal communication of significant EHSS hazards and risks to external stakeholders;
- Include a process to receive, assess, and respond to EHSS-related communications and inquiries from external stakeholders and other interested parties;
- Make appropriate product safety and product stewardship information publicly available;
- Participate in industry trade organizations, mutual assistance programs, and local industry groups where available that promote understanding of EHSS risks;
- Recognize the Responsible Care® performance of our employees.

3.6 Employee Involvement

Personnel identified as having roles and responsibilities relevant to this management system shall be involved in the development, maintenance, and communication of this EHSS Management System and applicable Responsible Care® codes.

3.7 Emergency Preparedness and Crisis Response

The company, operating segments and facilities shall have, as appropriate, Emergency Preparedness and Response and Crisis Response Plans, which consider:

- The capability to manage and respond to crises, emergencies, and incidents;
- Contingencies for crises, emergency situations, and incidents, including communications and response;
- Mechanisms and resources to prevent or mitigate associated adverse EHSS impacts, including community recovery needs as appropriate;
- Communications to key employees and appropriate stakeholders, including any mandatory reports to regulatory authorities;
- Periodic simulations to ensure adequacy, preparedness and effectiveness of these processes.

The company shall establish a system to periodically evaluate the effectiveness of Emergency Preparedness and Response and Crisis Response Plans.

3.8 Commercial Partners

Commensurate with risk, the company shall have a process in place to screen and select commercial partners which considers the following:

- Implementation and integration of management systems including but not limited to the Responsible Care Management System® into commercial partners operating practices;
- The environmental compliance and sustainability performance of selected commercial partners;
- The health and safety performance of selected commercial partners;
- The security performance of selected commercial partners.

The company shall establish programs to work with our suppliers as appropriate to support their continual improvement.



4.0 Monitoring

4.1 Monitoring and Measurement

The company, operating segments, and facilities shall establish systems to:

- Determine relevant monitoring and measurements; methods to be used; and the criteria against which Responsible Care® performance will be assessed.
- Monitor and measure Responsible Care-related performance, relevant operational controls, and conformance with Grace policies, procedures, and Responsible Care® Codes;
- Establish programs for the maintenance and calibration of equipment within the scope of this management system that controls EHSS hazards and risks;
- Monitor, measure, and report progress towards achieving EHSS objectives and targets;
- Review and communicate EHSS objectives, targets, and performance trends.

4.2 Evaluation, Monitoring, and Review of EHSS Compliance

The company, operating segments, and facilities, as appropriate, shall establish programs to assure EHSS compliance through periodic auditing and assessment. The scope of EHSS assurance shall also, commensurate with risk, consider the EHSS performance of carriers, suppliers, distributors, customers, contractors, and third-party providers. These programs shall:

- Verify compliance with laws, regulations, and operational controls established by applicable law and required by this management system.
- Assure and verify timely and effective containment, corrective, and preventive actions;
- Maintain systems to track corrective and preventive actions to closure;
- Include communications mechanisms that ensure audit results and follow-up are communicated to management;
- Include a formal process to establish and communicate audit frequency and scope.



4.3 Internal Auditing of Management System Performance

The company shall establish an internal audit program to assess conformance to the American Chemistry Council's Responsible Care Management System®: 2019 Technical Specification and the requirements laid out in this EHSS Management System Manual.

The audit program shall establish periodic internal audits of the effectiveness of the EHSS Management System by:

- Defining the frequency, methods, responsibilities, planning requirements, and reporting of results for internal audits;
- Establish audit criteria, auditor competency requirements, and scope for each audit;
- Assure and verify timeline and effective containment, corrective, and preventive actions where appropriate are developed and implemented;
- Include a process to communicate the audits results to relevant management.

4.4 Commercial Partner Review and Continuous Improvement

The company shall have an established process to review and reassess selected commercial partners including suppliers, carriers, contractors, and third-party vendors based on Responsible Care® or other environmental, health, safety, or performance criteria identified as material to the implementation of the Responsible Care Management System®.

4.5 Communications Effectiveness

The company shall periodically evaluate the effectiveness of its internal and external communications programs with selected internal and external stakeholders identified as material to the implementation of this management system.

4.6 Non-Conformity, Containment Actions, Corrective Actions, and Preventive Actions

The company, operating segments, and facilities shall establish preventive and correction action programs and processes to identify, document, communicate, and correct EHSS non-conformances, including those associated with carriers, suppliers, distributors, customers, contractors, and third-party vendors. These programs and processes shall include:

- Developing communication mechanisms for timely reporting of EHSS non-conformances;
- Conducting formal incident investigations and root cause analysis of identified EHSS non-conformance;
- Implementing timely and effective containment, corrective, and or preventive actions that address the root cause(s);
- System of tracking containment, corrective and preventive actions to closure;
- Communicating and sharing key findings, actions taken, and best practices and lessons learned across facilities;
- A process to review the effectiveness of corrective actions taken.

5.0 Management Review

5.1 Management System Review

The company, operating segments, and facilities shall establish programs to provide for Management Review of the Responsible Care Management System® and take action to ensure its continuing suitability, adequacy, and effectiveness. These programs shall ensure a review of:

- Possible need to change the EHSS Policy or the Responsible Care Management System®;
- Achievement of EHSS goals and objectives;
- Changing circumstances;
- Effectiveness of actions taken to manage prioritized risks and the commitment to continuous improvement;

The Management Review shall document any identified opportunities, conclusions, decisions and actions arising therefrom, including an evaluation of the alignment between the Responsible Care Management System® and the resources and strategic direction of the company.

Revision History

Version	Date	Summary of Changes
0.0	November 2, 2005	Original version.
1.0	March 1, 2006	Added Appendix C cross-referencing EHS MS to recognized standards.
2.0	January 1, 2015	Updated EHS MS Commitment and revised EHS MS to reflect RC101.04 Technical Specification, Process Safety, and Product Safety Codes.
3.0	November 8, 2018	Updated CEO commitment
4.0	July 30, 2020	Updated EHSS MS to align with Responsible Care®: 2019 Technical Specifications.

Appendix A

Roles and Responsibilities

Board of Directors

Monitor the company's EHSS strategic direction and its objectives and targets.

Chief Executive Officer

Establish, reinforce and communicate Grace's commitment to its EHSS Policy; review EHSS Management System as necessary to achieve the commitments of the EHSS Policy, Corporate EHSS standards, objectives and targets; promote a culture of continuous improvement in environmental, health, safety, process safety, product safety, and security performance.

Executive Leadership Team

Monitor overall EHSS Management System implementation and EHSS performance of the company; provide management support for EHSS program activities related to development, communication and execution of Grace's EHSS Policy, corporate EHSS standards, objectives and targets; support a culture of continual improvement in environmental, health, safety, process safety, product safety, and security performance.

Operating Segment Presidents

Support the EHSS Management System by providing resources necessary to assure conformance with Grace's EHSS Policy and standards, and to meet applicable EHSS objectives and targets.

Business Segment Vice Presidents

Reinforce and communicate organizational commitment to Grace's EHSS Policy and standards; establish business segment EHSS objectives and targets, and support the management programs necessary to achieve them.

Vice President, Integrated Supply Chain

Ensure implementation and maintenance of Management System at the facilities in conformance with Grace's EHSS Policy and corporate EHSS standards to meet applicable EHSS objectives and targets; promote a culture of continual improvement in environmental, health, safety, process safety, and security performance.

Integrated Supply Chain Directors

Direct implementation and maintenance of Management System at the facilities to ensure conformance with Grace's EHSS Policy and corporate EHSS standards to meet applicable EHSS objectives and targets; ensure a culture of continual improvement in environmental, health, safety, process safety, and security performance.

Environment, Health, Safety, and Security Steering Committee

Ensure implementation of Grace's EHSS Policy, programs, initiatives and EHSS Management System; monitor EHSS Management System activities and the overall EHSS performance of the company; provide strategic guidance for EHSS initiatives and sharing of best practices.

Senior Vice President, Government Affairs and Environment, Health, and Safety

Oversee EHSS Management System activities and communicate Grace's EHSS performance to appropriate stakeholders; drive cultural change through the company by promoting EHSS excellence; provide strategic direction to the company for continued improvement of EHSS programs.

Facility Managers

Assure the implementation of Facility EHSS Management System and provide the resources necessary for conformance with Grace's EHSS Policy and standards to meet operating segment EHSS objectives and targets; establish, evaluate, and periodically review annual facility EHSS objectives and targets; promote a culture of continuous improvement in environmental, health, safety, process safety, and security performance.

Grace Employees

All employees are empowered to recognize, eliminate, or report hazards to management. Each employee is encouraged to embrace a culture of EHSS excellence and recognize that compliance is a core value of the organization.

Titles above are descriptive; individuals in equivalent roles, with different titles, have the responsibilities described.

Appendix B

Definitions

Operating Segment: Grace's primary operational (business) units (Refining Technologies, Materials Technologies, and Specialty Catalyst)

Contract or Toll Manufacturer: A supplier who manufactures a product to Grace's specification

Contractors: Companies or persons that perform work and/or provide services at Grace facilities

Company: W. R. Grace & Co.-Conn

Crisis: An incident that involves a fatality, a life-threatening injury, harm to the public or the environment, the potential for substantial harm to the public or the environment, or any event that results in unsolicited media attention

Documents: Written policies, standards, guidance and procedures in paper or electronic form

Environment, Health, Safety, and Security:

Environmental, health, safety, process safety, product safety, and security (collectively, "EHSS")

Environment, Health, Safety, and Security (EHSS)

Objectives: Actions to minimize significant EHSS hazards and risks

Environment, Health, Safety, and Security (EHSS)

Risks: Elements, activities or hazards of the company's operations with potential human or environmental exposure; a significant environment, health and safety risk is one that has or could have a significant environment, health or safety impact

Environment, Health, Safety, and Security (EHSS)

Targets: Goals set to drive continual improvement in EHSS performance

Facilities: All corporately owned or leased manufacturing and research and development operations, and any office, warehouse, and other facilities which have potential significant environment, health and safety impacts

Facility EHSS Management System: The document used to guide a company facility in systematically managing the environmental, health, safety, process safety, product safety, and security aspects of its operations, consistent with the minimum EHSS performance standards described in Grace's corporate EHSS Management System.

Interested Third Parties: Individuals or groups concerned with or affected by the company's safety, health, or environment performance

Legal Requirements: Mandates and prohibitions contained in governmental laws, regulations, ordinances, etc., at all government levels (e.g., supranational, national, regional, provincial, state, and local); also includes obligations prescribed by government permits, judicial and administrative enforcement orders, and non-governmental legally-enforceable contracts

Operations: All company activities, products and services, including maintenance, storage, and transport of materials (including off-site transportation and storage of products) and office activities

Other Requirements: Environment, Health, Safety, and Security obligations provided by the company's Environment, Health, and Safety Policy and its EHSS Management System Standards, as well as any additional safety, health, and environment requirements prescribed by or committed to by the company, its operating segments and/or its facility management, including voluntary commitments

Records: Data, reports, completed forms, etc., including those relating to EHSS Management System training and EHSS Management System audit and review results, which are final and not subject to modification

Transporters: Non-Grace personnel who are responsible for shipping products, raw materials, supplies, and other materials to or from a Grace location



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