



EHS Management System

January 8, 2007

PPG EHS Policy

PPG will market, distribute and manufacture products globally in a responsible manner that protects employees, neighbors, customers and the environment. To meet this objective, the PPG EHS Process is integrated into each of our strategic business units. Our policy incorporates the elements of Responsible Care and Coatings Care initiatives and emphasizes our commitment to continuous improvement and sustainability.

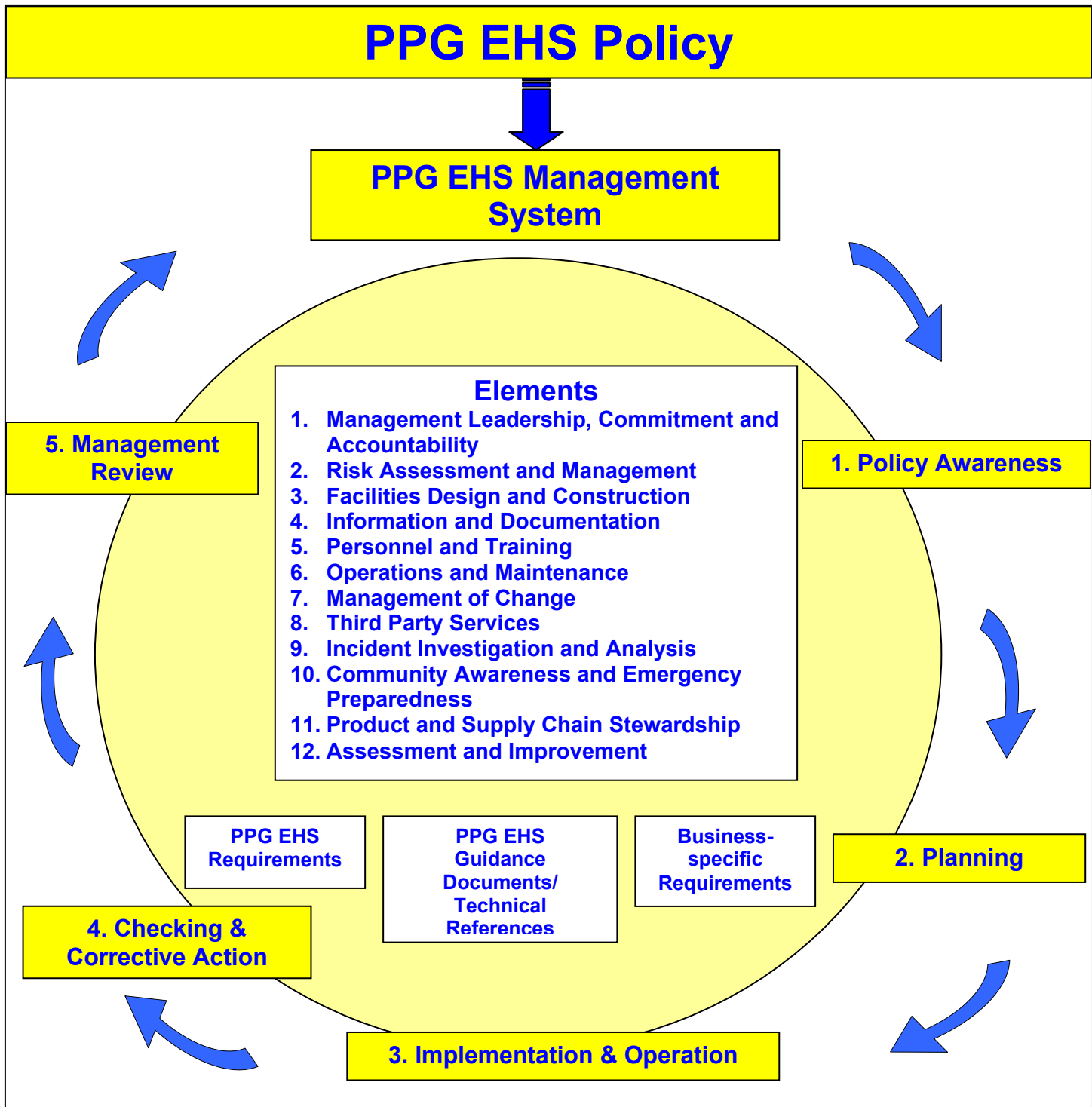
PPG EHS Management System

PPG's Environment, Health and Safety (EHS) Policy is implemented using PPG's EHS Management System. The twelve EHS Elements form the cornerstone of the management system by describing management's expectations for operations globally. Each Element contains underlying Principles and a set of Expectations. Specific information for each of the Elements is contained in PPG's EHS Requirements and other documents (Guidance Documents and Technical References). Additional business-specific requirements may also be appropriate, as determined by the SBU's management.

Business Unit management is responsible for EHS Management System implementation across the entire scope of its operations. Implementation must include the following five characteristics of an effective management system:

1. Policy Awareness
2. Planning
3. Implementation and Operation
4. Checking and Corrective Action
5. Management Review

Business Unit management is responsible for ensuring that the system is implemented appropriately in terms of scope and pace, consistent with the associated risks.



EHS Policy – describes PPG’s commitment to protecting people and the environment.

EHS Management System – prescribes the system to support the commitments made in the policy.

EHS Elements – establishes management’s expectations.

Management System Characteristics – requirements for effective implementation.

EHS Requirements Documents – prescribe minimum corporate expectations in key areas.

Business-specific Requirements – businesses may impose additional requirements on their operations. These may not be below the PPG Requirements.

EHS Technical References – provide further technical information.

EHS Guidance Documents – provide recommendations and assistance.

Element 1: Management Leadership, Commitment and Accountability

Principles:

Management establishes policy, sets expectations and ensures provision of adequate resources.

Management leadership and commitment need to be visible to the organization. Clear accountabilities must be established at all levels.

Expectations:

- 1.1 Appropriate systems for EHS management are established, communicated and supported at every level in the organization.
- 1.2 Managers actively and visibly demonstrate commitment and personal accountability for EHS, promote an open and trusting environment, and understand how their behaviors impact others.
- 1.3 Environment, Health and Safety Leadership Teams (EHSLTs) provide direction and guidance for implementation of EHS Expectations.
- 1.4 Supervisory knowledge and skills are developed to effectively apply the EHS tools and systems.
- 1.5 Roles, responsibilities, authorities and accountabilities are known and exercised.
- 1.6 Expectations are implemented through PPG Requirements, procedures or practices as appropriate.
- 1.7 Clear goals and objectives are established and performance is evaluated.
- 1.8 PPG employees actively participate in the EHS Management System and relevant lessons learned are shared across the organization.
- 1.9 EHS performance and the performance of the EHS Management System are evaluated, and the degree to which expectations are met is assessed. The results are stewarded by corporate management.
- 1.10 Managers responsible for third party business activities communicate PPG's EHS Policy to the third party and encourage the adoption of similar standards. When the third party does not adopt similar standards, the manager responsible should consider use of the contractor on a case-by-case basis.
- 1.11 PPG will assist in the development of responsible laws, regulations and standards that appropriately safeguard the community, workplace and environment.

Element 2: Risk Assessment and Management

Principles:

Implementation of risk assessment methodologies can reduce environmental, health and safety risks and help mitigate adverse consequences by providing important information for planning and decision-making.

Expectations:

- 2.1 Risk is managed by identifying hazards, assessing consequences and probabilities, and implementing appropriate preventive and mitigation measures.
- 2.2 Risk assessments are conducted as appropriate for operations, projects, services and products in order to identify and address potential hazards to people, facilities and the environment.
- 2.3 Risk assessments are performed by competent personnel, including expertise from outside the particular Business Unit or the Company as appropriate.
- 2.4 Risk assessments are updated as significant changes occur to processes.
- 2.5 The results of risk assessments are addressed by appropriate management personnel.

Element 3: Facility and Equipment Design and Construction

Principles:

Safety can be enhanced and risk to health and the environment can be minimized by using effective standards, procedures and management systems for facility design, construction and startup activities.

Expectations:

- 3.1 Project management procedures are documented, well understood and executed by competent personnel.**
- 3.2 Criteria are established and procedures are put in place for conducting and documenting risk assessments at specific project stages to ensure that risks are understood and minimized.**
- 3.3 The design and construction of new or modified facilities use approved design practices and standards that:**
 - Meet or exceed applicable regulatory requirements**
 - Embody responsible requirements where regulations do not exist**
 - Address other important considerations, including human factors.**
- 3.4 Deviation from approved design practices and standards, or from the approved design, is permitted only after review and approval by the appropriate authority.**
- 3.5 Quality assurance processes are used to ensure that facilities and materials meet design specifications and that construction is in accordance with the applicable standards.**
- 3.6 A pre-startup review is performed and documented to confirm that:**
 - Construction is in accordance with specifications**
 - Emergency, operations and maintenance procedures are in place and adequate**
 - Risk-management recommendations have been addressed and required actions taken**
 - Training of personnel has been accomplished**
 - Regulatory and permit requirements are met**

Element 4: Information/Documentation

Principles:

Accurate information about the configuration and capabilities of processes and facilities, properties of products and materials handled, potential hazards, and regulatory requirements is essential to assess and manage risk.

Expectations:

- 4.1 Appropriate drawings and other pertinent documentation necessary for operation and maintenance of facilities are identified, accessible, accurate and appropriately safeguarded.
- 4.2 Information on the potential hazards of materials involved in plant and laboratory operations is kept current.
- 4.3 Information on potential hazards associated with PPG's products, and guidance to enable proper handling, use and disposal, is documented and communicated.
- 4.4 Information on applicable laws and regulations, licenses, permits, codes, standards and practices is documented and kept current.
- 4.5 Pertinent records covering operations, maintenance, inspections, training and facility changes are maintained in accordance with PPG's Records Retention Policy.
- 4.6 Information on Emergency Response and Operations Continuance is documented and kept current.
- 4.7 Applicable Privacy Laws and Regulations are adhered to.

Element 5: Personnel and Training

Principles:

People are the most important asset of PPG. Achieving EHS objectives requires appropriate training and assessment of employees and the implementation of appropriate programs.

Expectations:

- 5.1 Initial and periodic refresher training is provided to meet job and legal requirements and to ensure understanding of the proper protective measures to mitigate potential hazards and meet environmental requirements. This includes training documentation.
- 5.2 Individual experience and knowledge are carefully considered when personnel changes are made.
- 5.3 A process for the management of personnel health and safety is in place. It is expected that employees and contractors recognize and mitigate operational, procedural and physical hazards. Identified unsafe conditions and behaviors that can lead to incidents are addressed.
- 5.4 A process for the management of occupational health is in place and is based upon assessed risk to personnel. Exposures are monitored and proper protective and preventive measures implemented. Pertinent health data is recorded and reviewed.
- 5.5 A process to promote non-occupational health and injury prevention is in place and is based upon assessed risks to personnel.

Element 6: Operations and Maintenance

Principles:

Operation of facilities within established parameters and according to regulatory requirements requires effective procedures for inspection and maintenance and competent personnel who consistently operate within established practices.

Expectations:

- 6.1 Operating, maintenance and inspection procedures are developed and implemented. These procedures are updated when appropriate. A work permit process incorporates checks and authorizations that are consistent with operational risks.
- 6.2 A Lock-Out, Tag-Out (LOTO) program is developed, maintained and enforced.
- 6.3 A confined-space entry program is developed, maintained and enforced.
- 6.4 Critical alarms, controls and emergency-response equipment are identified, tested and available for use.
- 6.5 The temporary disabling of critical alarms, controls, and emergency-response equipment is managed.
- 6.6 Operations with potentially higher risks are managed with special procedures.
- 6.7 Applicable laws, regulations, permits, governmental and PPG Requirements are met.
- 6.8 Proper long-term shutdown or abandonment of facilities is planned and managed.

Element 7: Management of Change

Principles:

Changes in operations, procedures, site standards, facilities, personnel, raw materials or products must be evaluated and managed to ensure that risks arising from these changes are properly assessed and managed.

Expectations:

- 7.1 A process is in place for the management of both temporary and permanent changes.
- 7.2 A process for managing change addresses:
 - Authority for approval of changes
 - Analysis of change in risk resulting from the change
 - Compliance with regulations and approved standards
 - Acquisition of needed permits
 - Documentation, including reason for change
 - Communication of risks associated with the change and required mitigation measures
 - Time limitations
 - Training
 - Reviewing the effectiveness of change
- 7.3 Temporary changes do not exceed initial authorization for scope or time without review and approval.

Element 8: Third Party Services

Principles:

Third parties (contractors and contracted personnel working directly with PPG facilities) impact PPG's operations and reputation. It is essential that they perform in a manner that is consistent and compatible with PPG's EHS Policies and Procedures.

Expectations:

- 8.1 Third-party services are evaluated and selected using criteria that include an assessment of capabilities to perform work in a safe and environmentally sound manner.
- 8.2 Third-party performance requirements are defined and communicated. They include:
 - Responsibility for providing personnel appropriately screened, trained, competent and able to perform specified duties
 - A process for self-monitoring and compliance
- 8.3 Effectively manage interfaces with organizations providing services to PPG.
- 8.4 Third-party performance is monitored and assessed, feedback is provided, and deficiencies are corrected.

Element 9: Incident Investigation and Analysis

Principles:

Effective incident investigation, reporting, and follow-up are necessary to assure the opportunity to learn from reported incidents and to use this important information to take corrective action and prevent recurrence.

Expectations:

- 9.1 A process is in place for reporting, investigating, analyzing, and documenting significant safety, health, environmental, product incidents and near misses.
- 9.2 Procedures exist for incidents and near misses which
 - Provide for timely investigation
 - Identify root causes and contributing factors
 - Determine actions needed to prevent recurrence and, where this cannot be achieved, reduce the risk of this and related incidents
- 9.3 Findings are retained, periodically analyzed to determine where improvements to practices, standards, procedures or management systems are warranted, and used as a basis for improvement.
- 9.4 Lessons learned from actual incidents and near misses among PPG organizations are shared as appropriate to facilitate improvements in performance.

Element 10: Community Awareness and Emergency Preparedness

Principles:

Community awareness is an important factor in maintaining confidence in the integrity of our operations. Emergency planning and preparedness are essential to ensure that, in the event of an incident, all necessary actions are taken for the protection of the public, the environment and company personnel and assets.

Expectations:

- 10.1 Community expectations and concerns about our operations, including those of the workforce, are recognized and addressed in a timely manner.
- 10.2 Emergency-preparedness and response plans are documented, accessible and clearly communicated.
- 10.3 Appropriate PPG Crisis Response Unit (CRU) notification and communications occur.
- 10.4 Equipment, facilities, and trained personnel needed for emergency response are defined and readily available.
- 10.5 Simulations and drills are periodically conducted, including consideration of external communications and involvement.

Element 11: Product & Supply Chain Stewardship

Principles:

Safe development, distribution, use and disposal of PPG products includes assessment of hazards, regulatory compliance and risk along the entire product supply chain.

Expectations:

- 11.1 Appropriate information describing material and product properties, potential hazards and potential customer, public and environmental exposures is collected and used to assess and manage product and supply chain risk.
- 11.2 Information on potential product hazards and guidance to enable proper handling, use and disposal of products, are documented and communicated as appropriate for the intended customers.
- 11.3 The performance of suppliers, carriers, distributors and agents is monitored and assessed. Feedback is provided and deficiencies are addressed.
- 11.4 Systems, training and equipment are in place for timely response to product transportation and distribution emergencies.
- 11.5 Risk associated with changes in product composition, use, market or customers is assessed and managed.

Element 12: Assessment and Improvement

Principles:

Assessment of the degree to which regulatory and PPG expectations are met is essential to the minimization of risk, improvement of EHS performance and maintenance of accountability.

Expectations:

12.1 Products, practices and operations are audited to assess conformance with regulatory and PPG Requirements.

12.2 The audit process examines conformance to requirements in two key areas:

- Regulatory requirements
- PPG EHS Elements and Requirements

12.3 The frequency and scope of audits reflect several factors:

- The complexity of the operation
- The level of risk
- Significant changes in process since the previous assessment
- Significant changes in management since the previous assessment
- EHS performance history.

12.4 Audits are conducted by multidisciplinary teams, deploying expertise from outside the immediate unit.

12.5 Findings from audits are addressed in a timely manner.

12.6 The effectiveness of the audit process is reviewed periodically, and findings are used to make improvements.

12.7 Effectiveness of overall EHS programs is assessed by the SBU.

Characteristics of the PPG EHS Management System

Each business unit and its respective operating units must have in place management systems that address all applicable Expectations set out in the PPG EHS Management System. Implementation must include the following five characteristics of an effective management system:

1. **Policy Awareness** – The EHS Policy represents PPG’s commitment to EHS excellence, from senior management down through every level of the organization.
2. **Planning** – Planning is used to identify potential EHS risks from activities, products and services, and to evaluate the types of programs and goals to minimize those risks.
3. **Implementation and Operation** – This part of the management system defines the people, systems, strategies, resources and structures necessary to meet EHS goals.
4. **Checking and Corrective Action** – Checking and Corrective Action is designed to monitor and record performance, and identify areas of corrective and preventative action for continuous improvement.
5. **Management Review** – Ongoing progress towards meeting the requirements of the EHS Management System is assessed and discussed on a regular basis by business unit EHS leadership teams.