



ChemStewards[®]
White Paper
2026

20 Years of Safety.
Built for What's Next.

Executive Summary

ChemStewards® is SOCMA's flagship environmental, health, safety, and security (EHS&S) performance improvement program, purpose-built for the specialty chemical manufacturing industry. For more than 20 years, the program has supported companies in strengthening safety performance, improving operational reliability, and demonstrating accountability to customers, regulators, and communities.

The 2026 ChemStewards® 2.0 refresh represents a significant evolution of the program. It transitions ChemStewards® from a traditional compliance-focused framework into a modern, risk-based management system and strategic business tool. This update reflects the changing expectations of regulators, customers, and stakeholders, while maintaining the program's core foundation of continuous improvement and third-party verification.

ChemStewards® now integrates ISO-style management principles, emphasizes leading indicators and performance data, and introduces flexible participation pathways. These enhancements position the program not only as a tool for compliance, but as a platform for operational excellence, transparency, and long-term value creation. For customers and partners, ChemStewards® continues to serve as a trusted signal that a facility operates within a structured, auditable, and continuously improving system.

The Need for Modern EHS&S Systems

The specialty chemical industry operates in a highly dynamic environment shaped by regulatory complexity, evolving customer expectations, and increasing operational risk. Facilities today are expected to not only meet regulatory requirements but also demonstrate proactive management of environmental, health, safety, and security risks across their operations and supply chains.

Historically, compliance-based approaches focused on meeting minimum regulatory standards. While essential, these approaches often lack the structure needed to ensure consistency, scalability, and continuous improvement. As the industry has matured, stakeholders—including customers, investors, and communities—now expect companies to operate with greater transparency, accountability, and predictability.

ChemStewards® was developed to address this gap. Unlike one-size-fits-all frameworks, it was designed specifically for the diverse nature of the batch, custom, and specialty chemical sector, where operations vary significantly in size, complexity, and risk profile. The program provides a structured yet flexible approach that enables facilities to manage risk effectively while maintaining operational agility.

ChemStewards® is a facility-based Environment, Health, Safety & Security (EHS&S) management system program that provides a structured framework for improving safety, environmental performance, and operational effectiveness. It is designed to integrate seamlessly into existing business operations while establishing consistent processes for managing risk and compliance.

At the center of the program is the ChemStewards® Management System, which follows a Plan–Do–Check–Act (PDCA) model. This approach ensures facilities are not only implementing processes but also continuously evaluating and improving them over time. The emphasis on documented systems—policies, procedures, and records—helps reduce reliance on informal practices and improves consistency across operations.

ChemStewards® is intentionally designed to be adaptable. Facilities can implement the system in a way that aligns with their size, complexity, and operational risks, while still meeting program expectations. This balance of flexibility and structure is a defining characteristic of the program and a key reason for its long-standing relevance within the industry.

The ChemStewards® Management System:

1. Follows a PDCA continuous improvement cycle
2. Emphasizes documented systems and repeatable processes
3. Integrates training, measurement, auditing, and corrective action
4. Supports alignment with ISO-style management systems

Key program attributes include:

- **Adaptability:** Scales to fit facility size and operational complexity
- **Accountability:** Requires independent third-party verification
- **Practicality:** Designed for real-world specialty manufacturing operations
- **Comprehensiveness:** Covers environmental, health, safety, and security

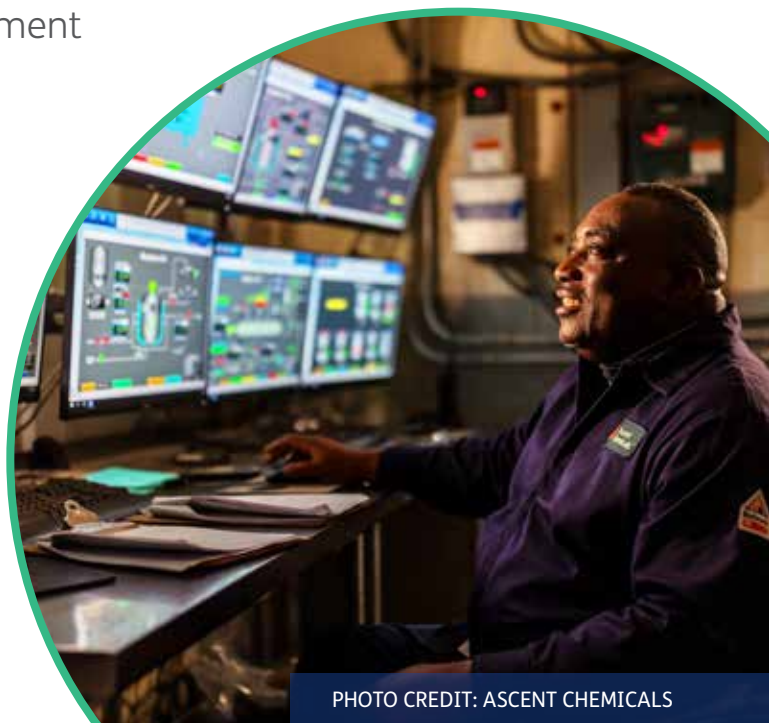


PHOTO CREDIT: ASCENT CHEMICALS

HOW CHEMSTEWARDS® WORKS: PLAN-DO-CHECK-ACT

ChemStewards® operates through a structured continuous improvement cycle based on the PDCA framework. This approach ensures that EHS&S performance is systematically managed, measured, and improved over time.



WHAT'S NEW IN CHEMSTEWARDS®?

The revised 2026 ChemStewards® materials explicitly reflect modern management system expectations commonly associated with ISO approaches:

- Risk-based thinking: hazards and risks are identified, evaluated, and prioritized; risk control actions and operational controls are used to manage significant risks.
- Organizational context and stakeholder expectations: ChemStewards® describes considering internal/external context, stakeholder needs, and (where applicable) lifecycle considerations.
- Documented information and control: ChemStewards® addresses documentation and records to demonstrate implementation and support audits.
- Performance indicators: ChemStewards® discusses selecting key performance indicators, including leading (process) and lagging (outcome) measures.
- Management review and continual improvement: the system is designed to identify gaps via audits/monitoring and drive improvements through corrective actions and leadership review.
- Integration themes: the 2026 manual includes examples that reference sustainability/climate considerations and the use of data/dashboards as part of review and decision-making where applicable.



ChemStewards® Structure

ChemStewards® is designed to be both flexible and inclusive, offering multiple pathways for participation that reflect the diverse needs of the industry. This approach allows companies to engage with the program in a way that aligns with their current systems and maturity level.

THREE PARTICIPATION PATHWAYS



Engagement Pathway

- Access to tools, guidance, and peer network
- Ideal for companies building or strengthening systems
- Not ChemStewards® Certified



Certification Pathway

- Full implementation of ChemStewards®
- Completion of a structured 3-year verification cycle:
 - » Year 1: Gap assessment
 - » Year 2: Document review
 - » Year 3: On-site audit
- Recognized as ChemStewards® certified



Equivalency Pathway

- Recognition of existing certified systems
- Alignment with ChemStewards® elements
- Recognized as ChemStewards® certified

ChemStewards® Components

1. CORE PRINCIPLES

The first step in implementing the ChemStewards® program is to understand and agree to the Core Principles. The top company executive must agree to and sign a statement committing to and implementing these principles. They are:

- Communicate with and engage employees, business partners and the community to foster a greater understanding of environmental, health, safety and security matters.
- Promote the concepts of product stewardship throughout a product's lifecycle.
- Make environmental, health, safety and security considerations a priority in the planning and operations for all new and existing products and processes.
- Train employees in their environmental, health, safety and security responsibilities and promote involvement and accountability in these areas.
- Continuously strive to use resources efficiently and minimize waste.

2. SECURITY

The ChemStewards® program encourages participants to use an integrated approach to verifying their security system. ChemStewards® has established 16 elements in which all are verified for security as well as environmental, health, and safety.

In addition, facilities are encouraged to conduct appropriate security risk evaluations using applicable methodologies, programs, or equivalent assessment tools to identify and address potential vulnerabilities. Where risks are identified, facilities should implement and maintain reasonable and appropriate countermeasures and continue ongoing risk mitigation efforts to reduce security risks to acceptable levels. Facilities subject to EPA's Risk Management Program (RMP) should ensure applicable security-related measures and mitigation activities are incorporated into their overall compliance and operational risk management programs and, where required, verified through third-party assessment.



3. PERFORMANCE METRICS

One of the key features of the ChemStewards® Program is the public reporting of important performance metrics summarized below. These metrics include:

- **Toxic Release Inventory (TRI)**
Releases of chemicals listed and reported to EPA under Superfund Amendments Reauthorization Act (SARA) Section 313.
- **Process Safety Incidents**
An incident is reportable if it meets all three of the following tests: 1) chemical/process involvement, 2) reporting threshold, 3) location.
- **OSHA Incidence Rate**
Defined by OSHA as the number of recordable incidents for each 100 full-time employees per year, based on 2,000 hours worked per employee per year.
- **Energy Efficiency**
Total energy, in millions of British Thermal Units (BTUs), consumed at SOCMA member company facilities divided by reported production, in millions of pounds, generated at each facility.
- **Hazardous Waste Generation**
A solid waste or combination of solid wastes, which, because of its quantity, concentration, or physical or chemical characteristics, may cause harm to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.
- **Employee Training**
An EHS&S training system refers to the entire process of planning to identify all risk-based and regulatory EHS&S training needs, establishing training goals against those needs, conducting training, checking competency and training effectiveness at the conclusion of training, and conducting periodic management reviews of training program execution against the identified needs and goals.
- **Product Stewardship**
Product Stewardship refers to the responsible management of the EHS&S aspects of a product along the supply chain that promotes communication and involvement of suppliers, customers, and others in the management of EHS&S issues such as safe transport, storage, use, and disposal.



4. CHEMSTEWARDS® MANAGEMENT SYSTEM

Every facility uses a management system to run its business. In the industrial setting, a management system can be informal, or formal and specifically structured.

The initiative behind ChemStewards® is to have a facility take its management system (formal or informal) and structure it according to set elements following the plan/do/check/act cycle. ChemStewards® gives an organization the latitude to incorporate its way of performing business on a day-to-day basis, but sets up the management structure to ensure certain tasks are institutionalized. This helps to achieve better performance reliability, consistency, and quality, and is the basis for continual improvement.

5. VERIFICATION FOR CHEMSTEWARDS® CERTIFIED FACILITIES ONLY

Verification is a three-step process over a three-year audit cycle based on the year the facility became a member of SOCMA. During year one in the ChemStewards® Program, the facility performs a Program Element Verification (PEV), which is a self audit of the elements. During year two in the program, the facility completes a Document Review of the EHS&S management system by a ChemStewards® Certified Auditor. In year three in the program, facility management performs an On-site Audit of the ChemStewards® Management System.

- Program Element Verification [PEV] (i.e., a web-based self-evaluation or gap analysis) in the first year.
- A third-party Document Review of the facility's management system in the second year.
- A third-party on-site verification of the facility's management system in the third year of the audit cycle. The re-certification of a facility occurs on a three-year timeframe.



ChemStewards® Elements

The ChemStewards® Management System is built on a comprehensive set of 16 core elements that collectively establish a structured, risk-based approach to environmental, health, safety, and security (EHS&S) management. These elements are designed to guide facilities in developing, implementing, and continuously improving their systems ensuring consistency, accountability, and operational excellence. Together, they provide a practical framework that supports regulatory compliance, enhances performance, and enables organizations to proactively manage risks across their operations.

POLICY

- Each facility is required to have a written EHS&S policy.

HAZARDS AND RISKS

- Member facilities are specifically required to conduct EHS&S hazard identification and risk assessments that will identify vulnerable assets, threats, or consequences and develop measures to eliminate or minimize the risks.

LEGAL AND OTHER REQUIREMENTS

- Legal requirements and voluntary commitments are to be identified for each member facility.
- Members must ensure access to relevant local, state, and federal laws and regulations, as well as other requirements to which the facility adheres.
- Facilities are to ensure processes are in place to comply with these requirements.

OBJECTIVES AND TARGETS

- Member facilities should establish a set of objectives and targets to reflect the facility's commitment to continuous improvement.
- EHS&S issues at a facility must be considered when generating EHS&S objectives and targets.

ACTION PLANS

- Facilities must have action plans established to achieve the site EHS&S objectives and targets.
- Action plans must be verifiable, quantitatively measurable with assigned responsibilities and timelines.

RESPONSIBILITIES AND ACCOUNTABILITIES

- Facilities must assign a primary EHS&S contact for each site, establish roles for EHS&S implementation, and provide appropriate resources to ensure implementation can be achieved.

TRAINING, AWARENESS AND COMPETENCY

- Facilities must ensure employees, contractors, and visitors are trained in the site's EHS&S policies and procedures.

COMMUNICATION

- Facilities must establish verifiable processes for internal and external communication on EHS&S issues.

MANAGEMENT SYSTEM DOCUMENTATION

- Documentation should include policies, procedures, and records developed and maintained for proper operation of the EHS&S management system.

OPERATIONAL CONTROL

- Operational controls enable a facility to define its expectation of EHS&S processes.
- Facility operational controls can include but are not limited to pre-employment screening, preventative maintenance schedule for equipment, purchasing technical specifications for services/equipment, and vehicle/employee access control etc.

EMERGENCY PREPAREDNESS AND RESPONSE

- Facilities must have an effective EHS&S emergency preparedness and response program that includes:
 - » Provisions for assessing the potential for emergencies
 - » Preventing incidents and their associated impacts
 - » Responding to incidents (emergency plans and procedures)
 - » Testing of emergency plans and procedures periodically
 - » Mitigating impacts associated with EHS&S incidents and emergencies

MONITORING AND MEASUREMENT

- Member facilities should monitor key EHS&S activities and track performance to assist in examining the effectiveness of management systems at the facility.

NON-CONFORMANCE AND CORRECTIVE/ PREVENTIVE ACTION

- Facilities should identify non-conformances and develop corrective or preventive actions regarding EHS&S incidents.
- Actions must be implemented to improve EHS&S management systems, prevent incident recurrence, and identify trends.

RECORDS

- Member facilities should identify all applicable EHS&S records needed for verification of the facility management system.
- Facilities must maintain records to verify the EHS&S management system is being implemented.
- Record maintenance may include but is not limited to storage times, retrieval methods, placement/handling, disposal times and disposal methods for each record at the facility. This is based on facility record retention policy.

INTERNAL MANAGEMENT SYSTEM AUDIT

- A management system and regulatory directed periodic internal audit is to be conducted to verify the facility management system is operating as intended and corrective actions have been successfully implemented.

MANAGEMENT REVIEW

- A management review is periodically conducted to determine the adequacy and effectiveness of the management system regarding EHS&S.
- The review should include, but not be limited to, the following:
 - » Results from internal management systems audits
 - » Results from compliance audits
 - » The extent to which objectives and targets have been met
 - » The results of monitoring and measurement
 - » The amount/type of training performed
 - » The number/nature of non-conformances or corrective/preventive actions identified and resolved
 - » Actions items with assignments and solutions



Member Value and Industry Impact

Customers rely on chemical suppliers not only for product quality and delivery performance, but also for safe, secure, and compliant operations. Operational risk is not always visible from the outside, especially when facilities rely on informal practices instead of documented procedures. ChemStewards® is designed to reduce that hidden risk by requiring facilities to define and document how they manage EHS&S responsibilities, identify and control hazards and risks, train people, track performance, and correct problems when they occur.

Key customer value:

- More consistency: critical tasks are documented and repeatable (less dependent on individual memory).
- More transparency: records, audits, and management reviews create traceable evidence.
- More confidence: third-party audits and structured verification can support supplier qualification.

THE EVOLUTION AND MODERNIZATION OF CHEMSTEWARDS®

The ChemStewards® Management System was developed through extensive collaboration among SOCMA member companies to address the unique needs of the specialty chemical industry. Initial development began in 2003 with the creation of an Environmental Management System (EMS) framework, followed by the adoption of a flexible, tiered management system approach in 2004. Between 2005 and 2006, member working groups and consultants established the full ChemStewards framework, including performance metrics, verification, and auditing components aligned with recognized standards such as ISO and Responsible Care.

ChemStewards® was formally implemented in 2006 and has continued to evolve through auditor feedback, member engagement, and committee oversight, creating a practical and industry-relevant system focused on continuous improvement.

In 2025, as ChemStewards® marked its 20th anniversary, SOCMA launched a comprehensive program refresh to address evolving industry challenges and modernize the framework.

In 2025, as ChemStewards® marked its 20th anniversary, SOCMA launched a comprehensive program refresh to modernize the framework and address emerging industry challenges. A member-driven working group from the Health & Safety Committee collaborated over several months with external consultants to update the program based on operational experience and industry needs. The refreshed program was reviewed and approved by the Manufacturing & Operations Committee to ensure alignment with business priorities and industry expectations.

Implementation of the updated ChemStewards® program began in 2026 and includes enhanced guidance materials, improved alignment with equivalent management systems, updated program tools, and refreshed resources intended to support member participation and continuous improvement across the specialty chemical industry.

ADAPTABILITY

The ChemStewards® system has flexibility catering to organizations that require less complex management systems or organizations that want to start with a simple system and grow into the full management system. In addition, it offers the capability of recognizing excellence and providing options for those performers to further excel in their management systems.

ChemStewards® recognizes and grants equivalency to other management systems with third-party system verification.

The ChemStewards® approach to multi-facility companies provides the advantage of reviewing all facilities at the document review level and then sampling for the onsite verification through a three-year audit cycle.

RECOGNITION

ChemStewards® has numerous options of providing recognition to member companies. Some of these include but are not limited to: member employee's efforts, peer recognition, community, and industry recognition. Some examples are:

- Annual Safety Recognition Program
- Certification Announcements
- Press Releases
- Certificate of Conformance and Flag
- Website Recognition
- Social Media
- Agency Recognition



ALIGNMENT WITH INDUSTRY STANDARDS

Many organizations already utilize established EHS&S management systems. ChemStewards® is designed to align with widely recognized frameworks while maintaining a practical, facility-based approach tailored to the specialty and batch chemical industry. The program incorporates environmental, health, safety, and security considerations into a single integrated management system framework.

Generally Comparable Systems

ChemStewards® has been benchmarked against recognized industry standards and management systems, including the Responsible Care® Management System (RCMS®), RC14001®, ISO 14001, and ISO 45001. The 2025 ChemStewards® program refresh further strengthened alignment with these established frameworks while maintaining flexibility for facilities of varying size, complexity, and operational risk.

A key distinction of ChemStewards® is its facility-based structure and integrated EHS&S scope, which is designed specifically to address the operational realities of specialty chemical manufacturing.

Partial Equivalencies

Some programs are described as partially equivalent by scope or focus, including ANSI Z-10, OSHA VPP, ISO 45001, OSHA SHARP, and certain stewardship programs. These can support components of EHS&S performance but may not cover the full EHS&S program scope in the same way.

Equivalency Pathway for SOCMA Members

SOCMA also recognizes that many member companies participate in other established management systems. Through the “Approval of Non-ChemStewards® Equivalent Management Systems” process, member companies may demonstrate equivalency through recognized systems such as RC14001®, RCMS®, or combinations of ISO 9001, ISO 14001, and ISO 45001, supported by appropriate cross-referencing and independent third-party verification.



ChemStewards® Comparison

A comparison of SOCMA's ChemStewards® Management System to other established Environmental, Health, Safety and Security (EHS&S) Management Systems is provided below in Tables 1 and 2. While these frameworks may be considered equivalent or partially equivalent to ChemStewards®, SOCMA member companies are responsible for confirming alignment and addressing any gaps to ensure full compliance with ChemStewards® requirements.

TABLE 1. GENERALLY EQUIVALENT ENVIRONMENTAL, HEALTH, SAFETY AND SECURITY MANAGEMENT SYSTEMS

Aspect	ChemStewards®	RCMS	RC14001	NACD RDP	ISO 14001 & ISO 45001
Scope	EHS&S	EHS&S	Environmental Focus, Limited HS&S	EHS&S	EHS Limited Security
Basis	Facility-Based	Company-Based Or Facility-Based	Company-Based Or Facility-Based	Company-Based	Company-Based Or Facility-Based
Audit Basis	Third-Party Auditors Approved By SOCMA	Third-Party Registrars	Third-Party Registrars	Third-Party Registrars	Third-Party Registrars
System Documentation	Checklist Format	Technical Specification	Modified Technical Specification	Code Of Management Practice	Technical Specification
Support Materials	System Manual, Verification Guidance, Metrics Manual, TSCA Manual, SVA Manual, Training Courses	RCMS Technical Specification Manual, Implementation Guidance, RC Metrics Data	RC14001 Technical Specification Manual, Auditor Guidance	NACD SVA Guidance Documents	ISO Technical Specification ISO Implementation Guidelines
Association Support Services	Full-Time Staff, Webinars, Teleconferences, Regional Meetings, Committees, Workshops, On-site Assistance, Mock Audits	Full-Time Staff, Teleconferences, Committees, Workshops	Full-Time Staff, Teleconferences, Committees, Workshops	Full-Time Staff, Regional Meetings, Coordinator Calls, Tradeshows	None
External Support	Consultants	Consultants	Consultants	Consultants	Consultants

PARTIAL PROGRAM EQUIVALENCIES

ChemStewards® recognizes additional programs that are partially equivalent to the EHS&S management system.

ANSI Z-10

Originally introduced in 2005 as a voluntary consensus standard, ANSI/ASSP Z10.0 provides a comprehensive framework for establishing and continually improving occupational health and safety management systems (OHSMS). The standard was significantly revised in 2019 to incorporate modern safety science, systems thinking, and alignment with international standards such as ISO 45001. It emphasizes a risk-based approach, leadership commitment, and worker engagement to proactively identify and control hazards, reduce incident potential, and foster a culture of continuous improvement. These elements are consistent with SOCMA's program goals and is, therefore, given partial program equivalency with SOCMA's ChemStewards®.

OSHA VOLUNTARY PROTECTION PROGRAMS (VPP)

The Voluntary Protection Programs (VPP) recognize workplaces that demonstrate excellence in occupational safety and health through comprehensive management systems and injury rates below industry averages. VPP fosters collaboration between management, employees, and OSHA to proactively prevent hazards using performance-based criteria.

Participation is voluntary and involves a rigorous application process, including an onsite evaluation by OSHA experts. Approved sites earn Star, Merit, or Demonstration status and receive official OSHA recognition, along with exemption from programmed inspections. VPP remains a benchmark for safety leadership, aligning with modern standards like ANSI/ASSP Z10 and ISO 45001 to drive continuous improvement and operational excellence. These elements are also consistent with SOCMA's program goal and the program is, therefore, given partial equivalency with ChemStewards®.

OSHA SAFETY & HEALTH ACHIEVEMENT RECOGNITION PROGRAM (SHARP)

OSHA's Safety & Health Achievement Recognition Program (SHARP) is a voluntary program that recognizes small employers, typically with fewer than 250 employees onsite, who implement exemplary safety and health management systems and maintain injury and illness rates below industry averages. To qualify, businesses must complete an OSHA On-Site Consultation, correct all identified hazards, and demonstrate a fully functional safety and health program.

Approved SHARP sites receive official OSHA recognition and are exempt from programmed inspections for up to two years, with renewal options. This designation

signals leadership in workplace safety, improves employee morale, and can reduce costs such as workers' compensation premiums. Once again, these program goals align with SOCMA's ChemStewards® and is therefore given partial program equivalency.

TABLE 2. PARTIALLY EQUIVALENT ENVIRONMENTAL, HEALTH, SAFETY AND SECURITY MANAGEMENT SYSTEMS

Aspect	ChemStewards®	Chlorine Institute Stewardship	ANSI Z-10	OSHA VPP	ISO 45001	OSHA SHARP
Scope	EHS&S	Health & Safety	Health & Safety	Health & Safety	Health & Safety	Health & Safety
Basis	Facility-Based	Facility-Based	Facility-Based	Facility-Based	Company-Based Or Facility-Based	Facility-Based
Audit Basis	Third-Party Auditors Certified By SOCMA	Third-Party Auditors	Third-Party Auditors	OSHA Auditors	Third-Party Registrars	OSHA Consultants
System Documentation	Checklist Format	Technical Specifications	Technical Specifications	Policy Manual	Technical Specification	Technical Specification
Support Materials	CSMS Manual, TSCA Manual, SVA Manual, Training Courses	Third-Party Publications	Third-Party Publications	OSHA Support Materials	ISO Technical Specifications ISO Implementation Guidelines	OSHA Support Materials
Association Support Services	Full-Time Staff, Webinars, Teleconferences, Regional Meetings, Committees, Certification	None	None	None	None	None
External Support	Consultants	Consultants	Consultants	Agency Consultants	Consultants	Agency Consultants
Development Driver	Member-Driven	UK Industry-Driven	US Industry-Driven	OSHA Agency-Driven	Global Industry-Driven	OSHA Agency-Driven
External Audit Frequency	Every 3 Years	Every 3 Years	Annual	Level-Dependent	Annual	Every 3 Years
Coverage For Multi-Facility	Facility Audits	Facility Audits	Facility Audits	Facility Audits	Facility Audits	Facility Inspections
Member Influence	High	Low	Low	Low	Low	Low

Conclusion

ChemStewards® is a facility-based EHS&S management system program designed for specialty chemical operations and aligned with modern ISO-style management system expectations. The revised 2025 materials emphasize risk-based thinking, documented processes, measurement (including leading indicators), audits, corrective action, and leadership review. All of these elements support supplier assurance. Through formal equivalency pathways, ChemStewards® can also be used alongside widely recognized systems such as RCMS/RC14001 and ISO 9001/14001/45001 combinations.

ChemStewards® 2.0 represents the next generation of EHS&S performance improvement for the specialty chemical industry.

By combining:

- Risk-based methodologies
- Data-driven insights
- Flexible participation pathways
- Verified management systems

ChemStewards® positions participants to meet the demands of a rapidly evolving industry while maintaining the highest standards of safety, responsibility, and operational excellence.



AFTER 20 YEARS OF PROVEN IMPACT,

ChemStewards® continues to serve as a trusted framework for performance, accountability, and continuous improvement—built for today's challenges and tomorrow's opportunities.

PHOTO CREDIT: FUTUREFUEL
CHEMICAL COMPANY