ChemStewards®
101
Training
Topics

• What is ChemStewards?
• Program Content and Overview
• Key Dates
• Benefits
• Member Resources
• Questions
What is ChemStewards®?

• An industry-developed Environmental, Health, Safety & Security (EHS&S) program

• Designed to meet the needs of the Batch, Custom and Specialty Chemical Industry

• Mandatory for SOCMA Active Members

• Third party verification program
ChemStewards® Commitment to Performance Improvement

Each active member agrees as a condition of membership to implement a performance improvement program with respect to operations and activities in the U.S.

– Endorsed by SOCMA’s Board of Governors
– Members commit to the program through Core Principles signed by the CEO or President
ChemStewards® Core Principles Overview

Members commit to principles covering:

- Stakeholder communications and transparency
- Product stewardship
- EHS&S in operating and planning
- Employee training, awareness and involvement
- Sustainability
# ChemStewards® Program Summary

*Three Tiered Program With Key Performance Requirements Per Tier*

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<thead>
<tr>
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<tbody>
<tr>
<td>Core Principles</td>
<td>Signed by CEO or President</td>
<td>Full MS Implementation</td>
<td>Full MS Implementation Plus Completion of a Third-Party EHS&amp;S Management System Verification</td>
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<tr>
<td>Management System</td>
<td>Focus on 6 Core and Regulatory Based Elements</td>
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<tr>
<td>Security</td>
<td>Security Vulnerability Analysis, Countermeasures, Verification*</td>
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<tr>
<td></td>
<td>- Toxic Release Inventory (TRI)</td>
<td>- Energy Usage</td>
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<td>- OSHA Recordable Rate</td>
<td>- Hazardous Waste Generation</td>
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<td></td>
<td>- Number of Process Safety Incidents</td>
<td>- Employee Training</td>
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<td>- Greenhouse Gas Emissions</td>
<td>- Product Stewardship</td>
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<td>- Production</td>
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<tr>
<td>Verification</td>
<td>Year 1 - Self Assessment (PEV)</td>
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<td></td>
<td>Year 2 - Document Review</td>
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<td></td>
<td>Year 3 - Onsite Audit; Certification Granted</td>
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ChemStewards® Security Overview

Obligations

– Security Vulnerability Assessment [SVA] if not regulated under DHS’s CFATS
  *If not regulated under CFATS, you must complete SOCMA’s SVA*

– The SOCMA security vulnerability analysis [SVA] can be accessed and completed in the ChemStewards Portal

  [www.portal.chemstewards.com](http://www.portal.chemstewards.com)
ChemStewards® Management System Overview

- *Facility based program* that incorporates corporate support functions
- Checklist approach, not a technical specification
- Utilizes the Plan/Do/Check/Act model for continual improvement
## ChemStewards® Metrics Overview

*Metrics Reported Annually*

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<tbody>
<tr>
<td>• TRI-Toxic Release Inventory (Air, Water and Land Releases)</td>
<td>• Tier 1 Metrics PLUS</td>
<td>• Tier 2 Metrics + Tier III Application</td>
</tr>
<tr>
<td>• OSHA Recordable Rate</td>
<td>• Energy Usage [per pound]</td>
<td></td>
</tr>
<tr>
<td>• Number of Process Safety Incidents</td>
<td>• Hazardous Waste Generated [per pound]</td>
<td></td>
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<tr>
<td>• Greenhouse Gas Emissions</td>
<td>• Training</td>
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<td></td>
<td>• Product Stewardship</td>
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ChemStewards® Verification Overview

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<tbody>
<tr>
<td>Program Element Verification (PEV) – Self Assessment</td>
<td>Same as the Fundamentals Tier</td>
<td>Onsite Review Every 3 Years</td>
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<tr>
<td>Third-Party Document Review</td>
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<td></td>
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<tr>
<td>Third-Party Onsite Audit</td>
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<tr>
<td>Onsite Review Cycles Every 3 Yrs</td>
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Path to Initial ChemStewards® Certification

Year 1 – Program Element Verification & Security Vulnerability Assessment

Year 2 - Document Review

Year 3 - Onsite Audit
Year 1: CSMS Verification – Program Element Verification (PEV)

- A self assessment of a facility’s EHS&S Management System
- Used by a member as a “gap analysis” to determine what is required for acceptable implementation
- Reported to SOCMA as “yes” or “no”, not pass or fail
- Required for each facility
- One time event completed in the first year
Year 2: CSMS Verification – Document Review

- Off-Site review of a member’s CSMS by ChemStewards certified third party auditor
- Member submits a completed checklist along with documentation to the verifying auditor
- Audit will result in a “Pass”, “Pass Conditionally” or “Fail” for each element question
- 4-6 hour limit based on tier level; one time event
- Non-conformances [Pass-Conditionally and Fail] are to be addressed within 6 months of the audit
Year 3: CSMS Verification – Onsite Verification

- Onsite audit performed by an ChemStewards certified third party auditor
- Limited to 8 hours onsite
- Will result in a “Pass”, “Pass Conditionally” or “Fail”
- Non-conformances [Pass-Conditionally or Fail] are to be addressed within 6 months of the audit.
- Certificate issued to facility following verification of CSMS status– Good for 3 years
CSMS Verification Arrangements

- **Contractual Arrangements**
  - Initiated between member facility and CSMS auditor
  - Coordinators communicate with the auditor about logistics
  - Cost is based on audit hours plus travel expenses for the onsite audit

- **Quality Assurance Of Audits**
  - Periodic witnessed audits
  - Member facility evaluates audits and auditor
  - Auditor approval can be rescinded, if deemed necessary
  - BEAC certified with industry experience
Path to ChemStewards® Recertification

Year 1 – No obligations

Year 2 – Security Vulnerability Assessment

Year 3 - Onsite Audit
**ChemStewards® Scorecards**

- **Contents**
  - Means to verify completion dates for facility
  - Tracking of individual information
- **Submitted to Facility Annually**
- **Can be requested from the CS team at any point throughout the year**

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### ChemStewards Status Update

<table>
<thead>
<tr>
<th>Obligations</th>
<th>Facility Name</th>
<th>Facility Name</th>
</tr>
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<tbody>
<tr>
<td>ChemStewards Start Date</td>
<td>01/01/2006</td>
<td>01/01/2006</td>
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<tr>
<td>ChemStewards Tier</td>
<td>Tier 2</td>
<td>Tier 3</td>
</tr>
<tr>
<td>RMP and/or PSM</td>
<td>Both</td>
<td>PSM</td>
</tr>
<tr>
<td>Core Principles Signed</td>
<td>Complete</td>
<td>Complete</td>
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<tr>
<td>Security: Security Vulnerability Analysis</td>
<td>Complete</td>
<td>Complete</td>
</tr>
<tr>
<td>Security: Countermeasures Implemented</td>
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<td>Complete</td>
</tr>
<tr>
<td>Security: Countermeasures Verified</td>
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<td>N/A</td>
</tr>
<tr>
<td>Management System: Self Assessment (PEV)</td>
<td>Complete</td>
<td>Complete</td>
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<tr>
<td>Management System: Document Review</td>
<td>Complete</td>
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<td>Management System: Onsite Audit</td>
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<td>Management System: Onsite Recertification</td>
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<td>1/21/2012</td>
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<td>Metrics: 2008</td>
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<tr>
<td>Metrics: 2009</td>
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<td>Complete</td>
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<tr>
<td>Site-specific Certifications</td>
<td>Complete</td>
<td>Complete</td>
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Benefits of ChemStewards® Scorecards

• Building a strong EHS&S Management System
• Gaining recognition for EHS&S efforts
• Stepping-stone approach to implementation
• Assists in establishing community stakeholders
  - Let your community know of your commitment to EHS&S
• Networking with industry peers
  Sharing Best Practices
Resources Available

- ChemStewards Portal (portal.chemstewards.com)
- CSMS Implementation Manual
- Committees focusing on specific areas of EHS&S interest
- Training & awareness through webinars, teleconferences, seminars such as Global Chem, Security Summit, Regional Roundtables/National Conference
- Regulatory tools such as TSCA manual, Security Vulnerability Assessment manual
- **Operator Training Manual**
- **SOCMA Q&A Page among CS members**
- Facility and auditor checklists with a CSMS Verification Objectives Document
- Member networking at annual regional meetings & awards dinner
- Press assistance
Recognition Opportunities

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 Performance Improvement Awards Program
- Certification announcements
- Case Studies
- Press Releases
- Certificate of Conformance and Flag
- Web site recognition
- Social media
SOCMA’s Member Only Resource Center

Join SOCMA’s IRCN
Stay informed on the latest international chemical regulations

About SOCMA
The Society of Chemical Manufacturers and Affiliates (SOCMA) is dedicated to specialty chemical manufacturers, distributors and affiliated service providers. SOCMA brings more than 90 years of world-class support uniquely tailored to enhance the operational excellence of our member companies. Read More
Accessing ChemStewards® Portal

The ChemStewards® Optimization website is an efficient environmental, health, safety and security (EHS&S) management system that allows our members to save time and money by having all ChemStewards and related EHS&S documents in a centralized, web-based repository. Data entry and ease of use will increase productivity for those responsible for managing this important function.

The new website, which includes all ChemStewards historical data, also allows you the option of sharing more EHS&S information with employees and auditors, thereby lowering costs and ensuring a more efficient dissemination of vital EHS&S information.

**To get a password click on “Request a Password.”**

A Quick Start Guide and complete User Guide can be found under the Help menu. Coming soon, a training session and video will be published to the site to assist users with common and frequent site tasks.

http://portal.chemstewards.com
Accessing ChemStewards® Portal

Login: romae
Password: ********

Remember Me

Login

Request Access
Forgot Password

*IMPORTANT: SOCMA members will need a separate username and password to access the socma.com website. Please email us at chemstewards@socma.com to request access to the SOCMA website.

http://portal.chemstewards.com
Member Benchmarking

- Create and share metric graphs specific to your company
- Benchmark with SOCMA Average
- Located in the ChemStewards Portal
ChemStewards Q&A Page

- Post a question to members to share their answers, suggestions and comments, anonymously
- Provides a framework for members to interact more frequently based on other similar interests and ideas
- Located in the ChemStewards Portal
Company Repository

- Provides Company Users the ability to add, edit, and delete documents for their Company
- Company Repository documents are not shared with other companies or auditors
Excellence Tier III

- Must Apply to be considered. Application in CS Portal.
- Allows facilities to showcase and share best practices
- Determined by a group of judges (includes CS Auditors)

To be eligible for the ChemStewards Excellence Level (Tier III), a facility must meet the following requirements:

- Complete all requirements for Tier II Certification.
- Using the below application form: Describe how your facility has exhibited continuous improvement over two or more years in each category (Environment, Personal Health & Safety and Process Safety). You may provide one or more areas of improvement under each category.
- Must be either Tiered under DHS CFATS or Perform SOCMA’s SVA
- Must not be subject to a process safety-specific CSB recommendation
- Must not be delinquent on any ChemStewards obligations
The Performance Improvement Award (PI Awards)

• The PI Awards are sponsored by the ChemStewards Program and recognize a facility’s outstanding commitment and efforts toward **continuous improvement** in EHS&S practices.

• It is based on the **ChemStewards Core Principles** (Stakeholder Communications, Product Stewardship, EHS&S in Planning and Operations, Employee Training and Engagement and Resource Management.) Awards are categorized by Gold, Silver, and Bronze. The Awards are **Facility based**, not Company.

• Other awards included in the program are the **Sustainability Award** and **Educational Outreach Award**
The Performance Improvement Award (PI Awards)

- The PI Award Winners are Recognized at SOCMA’s Annual Dinner in New York City December 4th
- Winners receive a plaque with their Company/Facility name and area of excellence stated on the plaque
- Photo with President & CEO of SOCMA
- Media Coverage
- Press Release Templates to distribute in their Community
The Performance Improvement Award (PI Awards)

Gold Winners
• Must be Tier III
• Must excel in all five Core Principles
• If a facility does not excel in all the Core Principles they will automatically be judged in the Silver Category

Silver Winners
• Must excel in at least two areas of the five Core Principles (For example, you must complete a minimum of two sections of questions to be eligible for a Silver Award.)
• Maximum of two silver awards per facility

Bronze Winners
• Must excel in one area of the five Core Principles
• Maximum of one bronze award per facility

*Please Note: not every application wins an award.
Certified Facilities

TCI America - Portland, OR
Nease Corporation - Harrison, OH
Baker Hughes, Taft Manufacturing – Taft, CA
ChemStewards Tools

CS White Paper

- Working document that will be updated as ChemStewards® continues to develop.
SOCMA’s Operator Training Manual
for Chemical Manufacturers

Features of the Chemical Operator Training Manual

• No Customization Needed – Adaptable to your Facility
• Excellent Resource – Guidance of Systems, Practices and Processes
• Assists in OSHA Compliance – if Certified under Process Safety Management (PSM)
• Includes Extensive Amount of Materials – PowerPoint Presentations, Testing Materials, Lesson Plans, etc.
SOCMA’s Operator Training Manual
for Chemical Manufacturers

Chapter Titles

- Basic Safety
- Basic Skills: Mathematics/Chemistry/Energy Conversion
- Process Safety Management
- Basic Skills II: Property, Pressure, Temperature, Vapor/Liquid
- Unit Operations
- Plant Economics
- Environmental Operations
- Reactor Systems
- Reactor Operations
- Plant Equipment
- Utilities
- Reactor Auxiliary Equipment
- Control Systems
- OSHA Safety Compliance
- Formulation

*Each chapter includes lesson plans, testing materials and PowerPoint Presentations
*Great way to improve a facility’s operations
SOCMA’s Operator Training Manual
for Chemical Manufacturers

Interested?

PDF Version:
SOCMA Members: FREE to download chapters online (www.socma.com)
FREE annual updates.
Can be downloaded on SOCMA site or ChemStewards Portal

Non-members: $1995 for the first year; $100 annual updates

“SOCMA’s Operator’s Training Manual is a valuable resource that can be used to provide a high, consistent level of training for operators and will result in improved operations at the plant.”
- SOCMA Member
2017 National Chemical Safety Symposium
*hosted by ChemStewards*

**October 11-12, 2017**
Houston Marriott West Loop
by the Galleria
Houston, TX

http://www.socma.com/meetings-events/socma-events
2017 National Chemical Safety Symposium
hosted by ChemStewards

Agenda

October 11th
9:00am – 11:30am: Regulatory and Legislative Updates
11:30am – 1:00pm: Lunch
1:00pm – 5:00pm: Workshop
Driving Continual Improvement in Conduct of Operations of Chemical Enterprises led by Jerry Jones
5:00pm – 6:00pm: Networking Reception

October 12th
8:00am – 4:00pm: Symposium

Symposium Topics and Speakers Include:

• Process Safety Culture – Donald Abrahamson, CCPS, Process Safety Auditor
• Panel Discussion – Process Safety Challenges Facing Small and Mid-Size Chemical Companies
• Chairwoman, Vanessa Sutherland, Chemical Safety Board
2017 National Chemical Safety Symposium
hosted by ChemStewards

**Pricing:**

- Member Price: $250
- Non-Member Price: $350
  * Includes Workshop, Reception and full day Symposium

**Early Bird Special Rate (April 1\(^{st}\) – June 14\(^{th}\))**

- Member Price: $200
- Non-Member Price: 300
ChemStewards Team

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  – nomae@socma.com
Stay Connected

The ChemStewards Network provides regular updates on the latest ChemStewards events, announcement, updates, and more. If you have anyone from your facility who ought to be on it, please send their

Name
Title
Email
Company
Mailing address
Phone number

to the ChemStewards team. They’ll receive emails, monthly e-newsletters, and more.
Questions?