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# RESPONSIBLE CARE®

## VERIFICATION REPORT

### STEPAN CANADA INC.

*February 8 & 9, 2012*

#### Disclaimer

This report has been produced by a team, convened by the Chemistry Industry Association of Canada (CIAC) to provide advice to the above company and assist it in meeting its Responsible Care commitments as a member of the Association. The material in it reflects the team's best judgment in light of the information available to it at the time of preparation. It is the responsibility of the CIAC member company which is the subject of this report to interpret and act on the findings and recommendations in this guidance document as it sees fit. Any use which a third party makes of this document, or any reliance on the document or decisions made based upon it, are the responsibility of such third parties. Although CIAC members are expected to share the results of this guidance document with interested parties, the association, its member companies, their employees, consultants and other participants involved in preparing the document accept no responsibility whatsoever for damages, if any, suffered by a third party as a result of decisions made or actions based on this report.

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## EXECUTIVE SUMMARY

Stepan exemplifies a 'can-do' attitude towards the implementation and long term management of Responsible Care. They have chosen to use the Codes of Practice as the basis of their technical implementation (resting on a foundation of Corporate standards and guidelines) and have successfully integrated their Canadian commitments with their parent company's overall Responsible Care initiative. The resulting management system conforms both to their commitment to the CIAC and to Corporate requirements. The support demonstrated by Corporate for local customization is unparalleled and is a large part of the overall success viewed by the team.

Also viewed was a truly outstanding dedication to assessment and implementation, which, when accompanied by a Corporate desire to improve overall Responsible Care structure and performance sets Stepan apart.

As a result of the examination conducted, and in consideration of the observations communicated within this report, the verification team is of the opinion that the Responsible Care Ethic and Principles for Sustainability are guiding company decisions and actions, and that a self-healing management system is in place to drive continual improvement. The verification is complete and no further involvement is required by the verification team.

Signed: Gerry Whitcombe  
Verification Team Leader

Date: April 2, 2012

For more information on this or a previous Responsible Care Verification Report, please contact your local company site or the company's overall Responsible Care coordinator:

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# SUMMARY OF VERIFICATION TEAM OBSERVATIONS

## Opportunities for Improvement

1. There is an opportunity for improvement to formally add responsibilities to the job description of the individual responsible for keeping up to date about possible urban/industrial developments and surrounding land use (OP28). ..... 9
2. There is an opportunity for improvement to further strengthen emergency response management by:  
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  - additionally addressing limited site access in the event of an emergency
  - working additionally with local first responders to ensure the message about shelter in place is delivered and tested at nearby facilities, particularly summer camps
  - reviewing on a regular and defined basis the emergency response plans for the two nearby responders to ensure all plans are fully complementary and integrated
3. There are opportunities for improvement in the promotion of Responsible Care.10
  - to better gauge awareness of Responsible Care amongst employees and others,
    - by updating the plant visitor video and,
  - by updating the company signage located at the corner of Rama road and Longford Mills Road, by proudly declaring itself "A Responsible Care Company", alongside the Responsible Care logo.
4. There is an opportunity for improvement to the sustainability of the procedure to include references to utilizing plant resources in the evaluation of product and customer risk in the procedure LM-SP-EP (ST96). ..... 11
5. There is an opportunity for improvement to develop guidance on the use of information collected in response to the customer questionnaire on product end uses, applications and risk management experiences (ST107). ..... 11
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10. There is an opportunity for improvement in the level of confidence the signing executive has that the intent of Responsible Care is being met. This can be achieved in part by ensuring the 'achieving the intent' input into the Plan process (coming from the Check and Act processes) is sufficiently critical of code interpretation and implementation. .... 15
11. There is an opportunity for improvement for the company to articulate what social responsibility means to them and develop an appropriate strategy and goals. .... 17

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1. The current initiative working with the two local emergency response departments with the goal of installing effective community fire sirens is acknowledged as a work in progress ..... 9
2. The company acknowledges that several systems are used for incident investigation and tracking and the team recognizes the effort to consolidate these systems as a work in progress and encourages completion of the project. .... 9

## Successful Practices

1. The company's Lotus Notes Management of Change system, for its automatic notification and follow-up components is a successful practice. .... 8
2. The company's leak detection and repair LDAR program with its emphasis on preventing recurrences rather than simply detecting leaks is a successful practice. .... 8
3. The company's low amp shutdown on transfer pumps to prevent them from running dry is a successful practice. .... 8
4. The company's questions regarding greener/safer alternatives in the sales questionnaire is a successful practice. .... 11
5. It is the team's opinion that the cooperative approach to the management of Responsible Care based on Corporate support for local customization of global systems with the ultimate goal of building better Responsible Care systems demonstrates the company's commitment to the ethic and is a successful practice. .... 13

# 1. INTRODUCTION

## 1.1 About Responsible Care Verification

As a member of the Chemistry Industry Association of Canada (CIAC), the most senior executive responsible for Stepan's operations in Canada attests annually to CIAC and its peers that the company's operations conform to the expectations contained in the Responsible Care Commitments and are guided by the *Responsible Care Ethic and Principles for Sustainability*.

### *The Responsible Care® Ethic and Principles for Sustainability*

*We are committed to do the right thing, and be seen to do the right thing.*

*We dedicate ourselves, our technology and our business practices to sustainability - the betterment of society, the environment and the economy. The principles of Responsible Care® are key to our business success, and compel us to:*

- work for the improvement of people's lives and the environment, while striving to do no harm;
- be accountable and responsive to the public, especially our local communities, who have the right to understand the risks and benefits of what we do;
- take preventative action to protect health and the environment;
- innovate for safer products and processes that conserve resources and provide enhanced value;
- engage with our business partners to ensure the stewardship and security of our products, services and raw materials throughout their life-cycles;
- understand and meet expectations for social responsibility;
- work with all stakeholders for public policy and standards that enhance sustainability, act to advance legal requirements and meet or exceed their letter and spirit;
- promote awareness of Responsible Care, and inspire others to commit to these principles.

As an element of this commitment to Responsible Care, Stepan must, every three years, participate in an external verification intended to:

1. Provide the Executive Contact with an external perspective when assessing if the company is indeed meeting the intent of the Responsible Care Commitments, along with advice on areas that may require attention;
2. Identify opportunities for assisting the company when benchmarking its own practices and performance against those of its peers, thus supporting continual improvement;
3. Contribute to the credibility of Responsible Care amongst company personnel and stakeholders, as well as the stakeholders of the broader industry;
4. Identify successful company practices that can be promoted to peers in the CIAC membership; and
5. Support the identification of areas of common weakness so that collective tools and guidance can be developed to improve performance in those areas across the CIAC membership.

Verification is conducted according to a common protocol, developed by the association's members and others, including several critics of the chemical industry. The verification is conducted by a team consisting of:

- Knowledgeable industry experts with experience in Responsible Care;

- A representative of the public at large (usually with a public interest background and with experience in Responsible Care gained from serving on the CIAC’s National Advisory Panel) and
- One or more representatives of the local communities where the company’s facilities are located.

Once completed, the Verification Report is made publicly available through the CIAC website ([www.canadianchemistry.ca](http://www.canadianchemistry.ca)). Stepan is also expected to share the report with interested persons in its communities and other stakeholders as part of its ongoing dialogue processes.

Additional information on Responsible Care and / or the verification process can be found at the CIAC website [www.canadianchemistry.ca](http://www.canadianchemistry.ca), or by contacting the Responsible Care staff at CIAC at [glaurin@canadianchemistry.ca](mailto:glaurin@canadianchemistry.ca) or (613) 237-6215 extension 233.

### 1.2 About Stepan

Stepan Canada Inc. is a wholly owned subsidiary of Stepan Company, a Chicago based global company. The company’s sole Canadian manufacturing facility, located in Longford Mills Ontario, has a long history of successive businesses and owners going back to the early 1900’s. It was purchased by Stepan in 1989. The site is located near Orillia Ontario, and is situated on a narrow piece of land between Lake Couchiching on the west but abutting the shore of Lake St. John on the east. About 2 Km to the east across Lake St John is a small local airport. The facility is near the Rama First Nation Reserve land, and is situated deep in cottage country with vacation and residential neighbours on both lakes. Also situated on Lake Couchiching, along with cottages are resorts and children summer camps. A few kilometers away, Casino Rama, a large gambling casino operating 24 hours a day with thousands of customers daily. During most times of the year, the transient population far exceeds the residential population.

The facility manufactures surfactants using both ethoxylation and sulphonation processes. The facility also makes phosphate esters and cocamidopropyl betaine a common shampoo ingredient. It has both chemical reaction and blend facilities and warehouses its products on site. A sales office is located in Burlington. It ships mainly non-hazardous product largely within Ontario and Quebec and exports to the USA where the parent company handles all company sales. Most of the company’s products are shipped by tank truck, rail and the remainder in drums. Liquid raw materials arrive via rail or truck, many have hazardous properties. There are also bagged raw materials which arrive by public transport.

### 1.3 About This Verification

The verification of Stepan Canada Inc. (Stepan) was conducted February 8 & 9, 2012 and included a team visit to the company facility located near Orillia, Ontario. During the course of the verification, the team had the opportunity to interact with a wide range of company personnel, as well as stakeholders external to the company. Attachment 2 contains a list of those individuals interviewed and their affiliations.

This was the sixth Responsible Care verification completed for Stepan. The last verification was completed in March 2010. The verification team was comprised of the following individuals.

<b>Name</b>	<b>Affiliation</b>	<b>Representing</b>
Gerry Whitcombe	CIAC	<i>Team Leader</i>
Rolly Blondin	CIAC	<i>Industry verifier</i>
Jim Wakefield	CIAC	<i>Public-At-Large Verifier</i>
Tim Artichuk	Private Contractor	<i>Community Representative</i>
Gilles Laurin	CIAC	<i>Observer</i>

## 2. TEAM OBSERVATIONS CONCERNING THE RESPONSIBLE CARE COMMITMENTS (CODES AND BENCHMARK AND COLLECTIVE EXPECTATIONS)

During the verification of Stepan, the verification team looked for evidence that the company was addressing the expectations documented in the Responsible Care Commitments. A 60% sampling of the 152 code elements, a review of the 28 benchmark and collective expectations and a thorough look at company response to the Ethic and Principles for Sustainability was undertaken (please see Attachment 3, Code Assessment Map for a listing of the code elements addressed during the team visit). While considering all aspects of the Responsible Care Commitments during the verification, the team placed an emphasis on conducting a more in-depth examination of certain company aspects identified by the company or the team. These were related to specific aspects of the company's community initiatives and Responsible Care branding.

In communicating its observations, the verification team will make repeated reference to the following categories of observations:

1. **Findings Requiring Action** document instances where the verification team observes specific company actions (or the absence of company actions) which are inconsistent with the detailed codes and benchmark and collective expectations contained in the Responsible Care Commitments. Where possible, the verification team will communicate, based on their experience and judgment, why it is inconsistent and how the observation relates back to a possible gap in the expected management system and / or the ethic and principles underpinning company actions. The team may also provide advice on how the situation might be responded to.
2. **Works in Progress** document instances where the verification team has observed the company self-initiating actions in response to identified gaps and deficiency arising from other internal or external audit and review activities, or where the company has self-initiated important improvement opportunities.
3. **Successful Practices** document instances where the team believes the company has taken actions that strongly support sustained excellence in performance, and which should be communicated throughout the CIAC membership.
4. **Improvement opportunities** identify instances where the verification team has observed company actions and decision making as being largely consistent with the expectations detailed in the Responsible Care Commitments, but for which the team is of the opinion that the company could support further improvement by considering alternate or additional benchmarks when undertaking its planning and decision making.

The verification team's observations of how the company has addressed the Responsible Care Commitments are as follows:

### 2.1 Team Observations Concerning Operations Code

The team is of the opinion that the company meets Responsible Care expectations for all reviewed Operations Code elements. There were no Findings Requiring Action in this section and three Opportunities for Improvement are presented for the company's consideration.

#### 2.1.1 Design and Construction of Facilities and Equipment

The company has documented standards and procedures to guide them in the design and construction of new facilities. Large projects have extensive Corporate involvement while smaller projects can be handled locally utilizing their excellent Management of Change process. For the codes that were reviewed all expectations for

Responsible Care implementation have been met. An opportunity related to meeting the intent of Responsible Care with respect to code OP6 is presented in Section 3.1.

### 2.1.2 Operations Activities

All operations activities including operating procedures, laboratory practices, transportation activities and plant maintenance are well documented and implemented meeting Responsible Care expectations.

The plant has familiar equipment and routines, makes extensive use of statistical process control and has applied consequence of deviation analysis to many of their processes. Training across all activities and departments is well defined and monitored. The Laboratory analytical performance is routinely checked through company interlab studies.

The company has documented standards for the selection and management of carriers and routinely evaluates them using an external “Motor Carrier Evaluation” process

Maintenance procedures are well integrated with the Management of Change process and preventive maintenance is routine.

The team reviewed the company’s Management of Change (MOC) procedure and also an active MOC on the company’s Lotus Notes system. The company has developed an excellent process and electronic tool and although systems of this type are now fairly common in the industry the company has built in excellent automatic notification and follow up components.

**The company’s Lotus Notes Management of Change system, for its automatic notification and follow-up components is a successful practice.**

### 2.1.3 Safety and Security

The company meets Responsible Care implementation expectations with its occupational health and safety programs. The company’s total recordable incident rate (TRIR) tracks below its CIAC peer company group and slightly above the aggregate for its parent company. Their goal is zero incidents (their current rate results from about one incident per year) and they are focused on proactively making improvements to enhance safety. For example, recently they added equipment to facilitate the manual handling of powdered raw materials.

The company handles several highly hazardous raw materials and as a result has a process safety management program fully capable of dealing with them and all other material on site. They are very active in internal (Global company) benchmarking and sharing and make full use of external opportunities for improving their understanding.

The following are two relatively small, but nevertheless noteworthy examples related to the success of their process safety management process:

**The company’s leak detection and repair LDAR program with its emphasis on preventing recurrences rather than simply detecting leaks is a successful practice.**

**The company’s low amp shutdown on transfer pumps to prevent them from running dry is a successful practice.**

Although currently dealt with adequately by personal commitment and dedication and partially by the company’s buffer zone policy the team feels that the company could formalize responsibilities for keeping up to date and in contact with local stakeholders about possible urban/industrial development and surrounding land use. Changes in these areas tend to occur over lengthy periods of time and without formalizing the responsibilities the rationale may be lost over time.



**There is an opportunity for improvement to formally add responsibilities to the job description of the individual responsible for keeping up to date about possible urban/industrial developments and surrounding land use (OP28).**

The company has a comprehensive, fully documented and tested emergency response program fully capable of responding to its worst credible case scenario. Due to the nature of the hazardous materials stored on site the company has trained 50% of its site employees in hazardous material (HAZMAT) emergency response. The company fully meets or exceeds expectations for the implementation of Responsible Care for all areas covered under emergency management.

The company works closely with the two nearby emergency response organizations and was highly praised for that cooperation at the dinner the team had with the company's Community Advisory Panel. The team does see an opportunity to further improve the company's efforts in this area.

**There is an opportunity for improvement to further strengthen emergency response management by:**

- **additionally addressing limited site access in the event of an emergency**
- **working additionally with local first responders to ensure the message about shelter in place is delivered and tested at nearby facilities, particularly summer camps**
- **reviewing on a regular and defined basis the emergency response plans for the two nearby responders to ensure all plans are fully complementary and integrated**

Finally for this emergency management area the team observed cooperation in the improvement of community alarm systems between the company and both nearby emergency responders and wishes to encourage completion of the project.

**The current initiative working with the two local emergency response departments with the goal of installing effective community fire sirens is acknowledged as a work in progress**

Under incident reporting and investigation the company utilizes several systems for inputting, investigating and tracking incidents. The team acknowledges the company's efforts to develop a single electronic tool.

**The company acknowledges that several systems are used for incident investigation and tracking and the team recognizes the effort to consolidate these systems as a work in progress and encourages completion of the project.**

#### **2.1.4 Environmental Protection**

The company is guided by clear Corporate policies directed towards sustainability and reducing its environmental footprint. Corporate goals and targets drive local targets and performance monitoring is routine. Procedures guide the selection and assessment of waste contractors.

This area fully meets our expectations on the implementation of Responsible Care. The team has picked two examples related to meeting the intent of the codes (OP58 and OP61) as an improvement opportunity discussed in section 3.1.

#### **2.1.5 Resource Conservation**

Stepan's parent company has a global commitment to reduce water consumption, greenhouse gases and energy consumption. Global goals are translated into local targets for which Stepan is held accountable. Of note locally is the recovery of over 50% of its steam condensate over the past year and the consequent energy use reduction.

The management systems supporting continual improvement in reducing the footprint of its operation are in place and meet expectations for Responsible Care.

### 2.1.6 Promotion of Responsible Care by Name

The company has done a very good job in promoting Responsible Care with its employees, contractors and in the community. Recently the plant manager received public recognition for effort in this area.

In review of the activities undertaken by the company the team is of the opinion that Responsible Care implementation expectations are being met.

We did, however, discover that the message wasn't necessarily getting through to all its own employees, principally those affected by shift scheduling. This and other improvements to the system are included in the following opportunity:

**There are opportunities for improvement in the promotion of Responsible Care**

- **to better gauge awareness of Responsible Care amongst employees and others,**
- **by updating the plant visitor video and,**
- **by updating the company signage located at the corner of Rama road and Longford Mills Road, by proudly declaring itself "A Responsible Care Company", alongside the Responsible Care logo.**

## 2.2 Team Observations Concerning Stewardship Code

### 2.2.1 Expectations of Companies

The company's operation is only affected by R&D activities in the event that a new or modified product is scheduled to be produced there. This is not a frequent occurrence and consequently stability of operation is a key operating feature of the plant site. The parent company is very active in R&D. To a large extent the company supplies product to the producers of consumer products.

It is noteworthy that Corporate has identified 'Partnering with Customers' and 'Reducing our Impact' as two of the four cornerstones of their Sustainability program. A statement of direction from their web-site is "to provide environmentally- advantageous goods and services" which, as one example, has resulted in a "Biorenewable Carbon Index" program to evaluate the amount of a product derived from natural sources. The intent is to work with customers to tailor products to meet the customers' green intentions.

This and other efforts are brought to the company's Experimental Production Run (EPR) program which shepherds all new product development. Each of the products entering EPR uses a Phase Gate PS&C process to ensure all aspects outlined in the codes of practice are dealt with.

Our review of this R&D area showed that it conforms to the expectations for Responsible Care implementation. Improvements to this area would center on ensuring the intent of the codes are being met by those providing the service and a suggestion is provided for one of the codes (ST88) in section 3.1

Beyond R&D the team explored how the company assesses its products and interacts with its customers to achieve its commitment to enhance people's lives and reduce risk. (With respect to raw materials the company makes use of highly hazardous chemicals and has determined that they are currently not substitutable. They work with their suppliers to enhance shipping and receiving and diligently apply their internal process safety management process to ensure risks are appropriately managed.) We found well implemented programs and documented procedures covering all codes for this area and conclude that the expectations for implementation of Responsible Care are being met.

In one sales procedure plant personnel are called upon to assist in evaluating product and customer risk information but this is not acknowledged in the procedure.

**There is an opportunity for improvement to the sustainability of the procedure to include references to utilizing plant resources in the evaluation of product and customer risk in the procedure LM-SP-EP (ST96).**

In the area of Communication through the Value Chain the company meets Responsible Care implementation expectations. They are diligent in their use of a sales questionnaire in seeking customer feedback and as an improvement to this system the team suggests closing the loop on using the collected information:

**There is an opportunity for improvement to develop guidance on the use of information collected in response to the customer questionnaire on product end uses, applications and risk management experiences (ST107).**

Also in the company's customer questionnaire the question

“Has your Stepan Sales Team reviewed and made you aware of the Responsible Care Commitment by offering you greener, more sustainable products? Involving and assisting you in designing your products to enhance sustainability throughout your product's lifecycle?”

is asked. The team is of the opinion that this represents a small but significant shift towards sustainability and social responsibility on the part of the company that is worthy of being shared.

**The company's questions regarding greener/safer alternatives in the sales questionnaire is a successful practice.**

### 2.2.2 Expectations with Respect to Other Parties

The company has procedures for the selection and management of third party goods and services providers and in general the team has determined that they meet Responsible Care implementation expectations. Improvements to this area relate to ensuring the intent of the codes of practice are represented in the standards/procedures and two examples (ST115 and 116) are presented in section 3.1

### 2.3 Team Observations Concerning Accountability Code

The team reviewed this area in detail and had the opportunity to discuss the company's programs and performance with their Community Advisory Panel (CAP) as well as with non-management company employees. In general the company has implemented programs meeting all Responsible Care expectations. The company's CAP has a fairly diverse membership including first responder, politician and first nation members but is weighted more to the technical side.

**There is an opportunity for improvement to balance CAP membership by attempting to include more local residential members at an appropriate time.**

#### 2.3.1 Operating Site Communities

The company has documented processes to manage their community dialogue process. They are fully engaged with their CAP, have made use of open houses and plant tours (good turnout for the most recent one) and have a community information brochure and a shelter in place brochure. They also have a process to handle inquiries and have communicated one-on-one with near neighbours. All areas of this area have been implemented to meet Responsible Care expectations.

The company uses their 2 and 3 km credible case scenario radius to identify their immediate community. The code suggests additional criteria which may help the company better define this area.

**There is an opportunity for improvement to review the definition of community based on criteria mentioned in the code (AC125).**

### 2.3.2 Other Stakeholders

There are seven sub categories in this section and in general the company meets Responsible Care implementation expectations for all. In the section on Non-governmental Organizations the team would challenge the company to review their programs in the light of the intent of Responsible Care and have included the observation in Section 3.1.

Under 'Transportation Corridor', although the company is the lone CIAC member in the local area the team would also challenge the company to engage its suppliers and carriers to participate with it in the development of a program satisfying the intent of this code and TransCAER. There are other member companies in similar situations and the company may benefit by establishing contact with them.

**There is an opportunity for improvement working alone or with others to ensure TransCAER expectations are set and progress is monitored (AC145).**

### 3. TEAM OBSERVATIONS ON THE COMPANY MANAGEMENT SYSTEM

It is a requirement of Responsible Care that companies have a documented, self-healing management system or systems capable of identifying and responding to deficiencies and otherwise supporting continual improvement across all company business units, functions, and sites and as a framework for implementing the Responsible Care Commitments.

The verification team studied Stepan's management system(s) and compared and contrasted the attributes of that system(s) to those of a self-healing overall management system as discussed in the CIAC Management System Guide.

The verification team's related observations to the company management system(s) are as follows:

The company's management system for Responsible Care is complete and comprehensive. The recently developed and implemented standard (LM-EHS-07.00b – "Stepan Canada CIAC Responsible Care Management System") has been developed using the CIAC Management System Guide as its model. The system is fundamentally based on the parent company (Corporate) Responsible Care Management System but Corporate support for the local initiative is evident and is a large part of the success of the company's approach. There is, in fact, a global effort to become more engaged in country specific Responsible Care initiatives with the goal of developing a better overall corporate system by learning from the country systems.

The company's Board of Directors, Operating Committee and Responsible Care Team all have been defined as stakeholders and responsibilities for all code elements have been assigned to individuals from the Responsible Care Team.

Prior to the annual signing of the commitment to Responsible Care the signing executive reviews all code elements with respective code champions to be assured that the intent of Responsible Care is being met.

**It is the team's opinion that the cooperative approach to the management of Responsible Care based on Corporate support for local customization of global systems with the ultimate goal of building better Responsible Care systems demonstrates the company's commitment to the ethic and is a successful practice.**

One item in the referenced standard stands out as support for CIAC's focus on "The Responsible Care Ethic and Principles for Sustainability":

"2.8....The gap analysis is reviewed at least annually by the team to gauge whether activities for each element are achieving the intent of the Responsible Care commitment and for continuous improvement" (verification team emphasis). The team has not often (if at all) seen "achieving the intent" built into Responsible Care standards.

This recognition of the approach taken by the company may be seen as somewhat premature given that it has only recently been implemented. However, the team was impressed with the speed with which the company implemented this standard and wishes to flag it for its outstanding approach. Issues related to sustainability and performance should be addressed next verification.

**There is an opportunity for improvement, related to sustainability, to influence the wording of the corporate RCMS to include recognition of, and support for local Responsible Care requirements and initiatives.**

### 3.1 Observations on the PLAN Step

During the PLAN Step of the management system, the company decides what the goals of the company are and how they will be met. In determining those goals, it is expected the company will look inward, across its operations, but will also look outward, considering the expectations of: stakeholders; regulatory requirements; relevant CIAC Responsible Care Commitments and supporting tools; and other industry benchmarks. In considering the PLAN Step of Stepan's management system, the verification team observed the following: The company has listed 35 individual inputs (under such topics as Responsible Care Commitments, Stakeholders, Business Imperatives, Laws and Regulations and Benchmarks) that are used by 18 identified planning activities (such as 'Annual EH&S Performance Reviews', 'Benchmarking against sister plants', 'Findings from audits Management reviews, Responsible Care gap analysis, risk assessments, hazops', Etc.). The inputs are comprehensive and include those inputs expected in meeting their commitment to Responsible Care (such as 'Audits', 'Employee Networks', 'RC Peer Companies', 'Internal Management System Audits', Etc.) . The extensive list of planning activities makes clear the connection between these activities and meeting the commitment.

The company has a cascading goal setting process involving Key Performance Indicators (KPI) and Balanced Scorecard (BSC) objectives. KPIs are more individually focused and reviewed monthly while BSC performance is reported quarterly company-wide.

Throughout this report the team has mentioned that observations about 'achieving the intent of Responsible Care' (2.8 of the standard) would be presented in this section. Our purpose is to collect items that demonstrate how an external party might view code elements from this perspective. This list is not meant to be comprehensive and the ideas presented in it can be applied to any relevant code. Typically these codes relate to those circumstances where service is provided outside of local control but the onus remains with the company to ensure that the service provider is applying sound Responsible Care practice.

The examples observed by the team include:

- OP6 has been evaluated as N/A in the gap assessment; however the company could ensure that any R&D that is applied to the plant is done so only in conformance to Responsible Care principles. When R&D is not typically performed at a plant site this is more about being prepared should the opportunity present itself.
- In OP58 the Company could ensure that the intent of this code is being met by Corporate targets, goals and emphasis. It is not enough to accept that Corporate programs meet the intent and a local interpretation may uncover deficiencies leading to local programs or to initiatives to influence Corporate programs.
- The team observed that at some point in time empty drums from customers were returned to the plant for recycling but that the practice had stopped. A never-ending pursuit of recycling opportunities would suggest that situations of this type are constantly re-evaluated. (OP61)
- With ST88 the company could ensure the Phase Gate process deals completely and early with this code and if necessary influence the development of any needed modifications.
- The company could investigate ways to ensure that off-shore suppliers meet the intent of Responsible Care (ST115).

- Even though the services named in ST116 are not used (with the exception of outside labs) the company could be proactive in ensuring Responsible Care expectations are properly documented and capable of being fulfilled should these service providers ever be used.
- The company could be better prepared by being proactive in, for instance, identifying NGOs where a focus on local issues has the potential for negative outcomes should the situation grow unexpectedly (AC147).

These observations lead to the following opportunity:

**There is an opportunity for improvement in the level of confidence the signing executive has that the intent of Responsible Care is being met. This can be achieved in part by ensuring the ‘achieving the intent’ input into the Plan process (coming from the Check and Act processes) is sufficiently critical of code interpretation and implementation.**

### 3.2 Observations on the DO Step

During the Do Step in the management system, the company converts the decisions of the PLAN Step into action and ensures awareness and understanding by all involved. It is expected that the company will implement an organizational structure, assign responsibilities to appropriate personnel, supply sufficient training and resources to execute planned actions and develop and document standards, procedures and programs, as applicable.

In considering the DO Step of Stepan’s management system, the verification team observed the following: The company has exceeded expectations for this portion of the management system. Standards and procedures are well documented and available electronically throughout the plant. Most Process and Instrument Drawings (P&ID) are up to date. Activities listed in the standard are comprehensive. One area that is representative of this observation is in the organizational structure for the management of Responsible Care. The Responsible Care Management Team is comprised of individuals having a direct responsibility for various code elements. Each code element has been individually assigned a champion (or champions) from this team and the unusual aspect is that the Corporate Director of Regulatory Affairs has been included, not only on the management team, but also as a code champion. This has created a direct two way CIAC Responsible Care link between Stepan and their corporate parent.

### 3.3 Observations on the CHECK Step

During the CHECK Step in the management system, actions carried out in the DO Step are assessed to determine if they are actually being carried out according to plan, and whether they are achieving the desired outcomes and delivering continual improvement. Here, the overall management system and components will be reviewed along with employee competences for assigned responsibilities, internal and external audits will be undertaken, incidents will be assessed to identify root causes, and performance measurement will be conducted and reviewed.

In considering the Check Step of Stepan’s management system, the verification team observed the following: The company has a mix of checking activities ranging from ISO 9000 external and internal audits to weekly ‘Fireside chats’ and checks of the Community Advisory Panel and of the Cottagers Association. All expected Responsible Care checking activities are present and this area fully meets implementation expectations.

### 3.4 Observations on the ACT Step

During the ACT Step in the management system, the company translates the results of the CHECK Step into corrective actions for improvement. This includes revisiting the PLAN Step to decide whether changes are needed to the company’s stated goals or action plans, policies and procedures for achieving those goals.

Considerations when examining the Act Step include whether and how: audit and review findings are responded to; performance is communicated internally and externally; employee and contractor performance is rewarded and corrected, etc.

In considering the Act Step of Stepan's management system, the verification team observed the following: The company performs a range of activities on a routine and regular basis satisfying this part of their management system. The activities are comprehensive and tie the check step with the plan step. Of note is the speed with which the company has implemented its new Responsible Care management system and the support given by Corporate. The team agrees that the act part of the company's management system meets all implementation expectations for Responsible Care.



## 4. TEAM OBSERVATIONS ON THE RESPONSIBLE CARE ETHIC AND PRINCIPLES FOR SUSTAINABILITY

Each CIAC member company is formally committed to the ethic of “*Doing the right thing, and being seen to do the right thing.*” This ethic, along with the principles for sustainability are expected to guide the company’s decision making and practices. In conducting the verification, the team is looking to understand how well the ethic is understood and adopted within the company, and the degree to which the principles inform the manner in which the company does its business.

The verification team carefully observed Stepan’s decision making processes and actions and compared and contrasted the attributes of those with the attributes of a company guided by the Responsible Care Ethic and Principles For Sustainability as discussed in the Responsible Care Commitments (Appendix E).

It is the team’s opinion that the company aligns very well with all eight Principles for Sustainability and the team encourages Stepan to continue making progress in all areas.

- work for the improvement of people's lives and the environment, while striving to do no harm;
  - ✓ the company’s products are consumer oriented and the company is striving to go down a ‘green’ path with its ‘Biorenewable Carbon Index’ initiative as an example.
- be accountable and responsive to the public, especially our local communities, who have the right to understand the risks and benefits of what we do;
  - ✓ the company has an active CAP, regularly connects with the Cottagers Association and has very close ties with local emergency responders.
- take preventative action to protect health and the environment;
  - ✓ very high on their priority list due to the nature of the hazardous raw materials used by the operation.
- innovate for safer products and processes that conserve resources and provide enhanced value;
  - ✓ Corporate R&D green focus – about 70% of all new initiatives.
- engage with our business partners to ensure the stewardship and security of our products, services and raw materials throughout their life-cycles;
  - ✓ challenging for a small subsidiary but are working on customer assessments, using the CIAC blue book with customers, partnering with suppliers on Ethylene Oxide workshops, etc.
- understand and meet expectations for social responsibility;
  - ✓ The company has corporate guidelines and standards (Giving Back to the Community, CAER procedure) that help guide the site. However, social responsibility has many local ramifications and the company would benefit by developing a local definition embracing Corporate and Responsible Care direction in a site philosophy.
  - ✓

**There is an opportunity for improvement for the company to articulate what social responsibility means to them and develop an appropriate strategy and goals.**

However, one excellent example of exercising social responsibility and enhancing community relations is the sharing of the company’s Management of Change process with the local First Nations community. The company responded on the recognition that the

casino represented a large, complex entity that would substantially benefit from a formalized change management process and volunteered theirs.

- work with all stakeholders for public policy and standards that enhance sustainability, act to advance legal requirements and meet or exceed their letter and spirit;
  - ✓ are actively involved with CIAC activities and have worked with local politicians on an air traffic issue. An example of exceeding the spirit of the law in process safety management is by applying the Canadian PSM HISAT requirements to their OSHA PSM (US Based) program (which is required by corporate).
  
- promote awareness of Responsible Care, and inspire others to commit to these principles.
  - ✓ plant manager is committed to make use of the stage as presented and has taken the opportunity to promote the CIAC vision of Responsible Care from the local Chamber of Commerce all the way to a Stepan California plant.

## 5. VERIFICATION TEAM CONCLUSION

Stepan exemplifies a 'can-do' attitude towards the implementation and long term management of Responsible Care. They have chosen to use the Codes of Practice as the basis of their technical implementation (resting on a foundation of Corporate standards and guidelines) and have successfully integrated their Canadian commitments with their parent company's overall Responsible Care initiative. The resulting management system conforms to both their commitment to the CIAC and to Corporate requirements. The support demonstrated by Corporate for local customization is unparalleled and is a large part of the overall success viewed by the team.

Also viewed was a truly outstanding dedication to assessment and implementation, which, when accompanied by a Corporate desire to improve overall Responsible Care structure and performance sets Stepan apart.

As a result of the examination conducted, and in consideration of the observations communicated within this report, the verification team is of the opinion that the Responsible Care Ethic and Principles for Sustainability are guiding company decisions and actions, and that a self-healing management system is in place to drive continual improvement. The verification is complete and no further involvement is required by the verification team.

## COMPANY RESPONSE TO VERIFICATION TEAM REPORT

On behalf of Stepan Canada Inc I have reviewed this verification report. The observations and conclusions contained in the report have been discussed with the verification team and Community Advisory Panel.

Stepan Canada Inc found the verification process to be a valuable learning experience and benefited from the knowledge and experience of the verifiers. The process was well organized and we appreciate all of insights from the verification team. Stepan Canada has reviewed all of the observations and has started making improvements in all of these areas. We look forward to demonstrating continued progress and evolving in our implementation of the Responsible Care ethic and principles.

Stepan Canada Inc will communicate the results of the verification exercise with its CIAC peers at their next meeting, and will discuss the verification results with our stakeholders, including those representing communities near our operating sites.

Plans will be developed and implemented to respond to the Improvement Opportunities identified by verification team and will assist the CIAC in communicating and sharing the identified Successful Practices to other CIAC members. Our progress in implementing those plans will be discussed when preparing our Annual Statement of Re-Commitment to Responsible Care, and communicated to the verification team at the time of our next verification.

Martina Hudoba  
Plant Manager  
Stepan Canada Inc.  
May 14, 2012

## INTERVIEW LISTS

## A: Company Personnel Contacted During Verification Process

Name	Position	Location
Martina Hudoba	Plant Manager	Longford Mills
Pat Hartman	Director, Regulatory Affairs	Northfield, Illinois
Craig Raben	Corporate Environmental Leader	Northfield, Illinois
David Kelly	QA Manager	Longford Mills
Andrea Lagace	Process Engineer	Longford Mills
Suzie Moss	Sales Representative	Burlington
Chris Heavener	Purchasing/Scheduler	Longford Mills
Bill Brazeau	EH&S Manager	Longford Mills
Kevin Raymond	Supply Chain Coordinator	Longford Mills
Laura Cicinelli	OE Process Engineer	Longford Mills
Arnold Rientsma	Kettle Operator	Longford Mills
John Arbour	Assistant Operator	Longford Mills
Dennis Duchemin	Bulk Unloader	Longford Mills

## B: External Stakeholders Contacted During Verification Process

Arnold Ingersoll	CAP –member Rama First Nation	Rama/Ramara
Rick Donato	CAP – Health & Safety Manager, RAMA First Nation	Rama/Ramara
John O'Donnell	CAP – Councillor Ramara Twp	Rama/Ramara
Mike French	CAP – Fire Chief RAMA First Nation	Rama/Ramara
Jeremy Parkin	Deputy Fire Chief, RAMA First Nation	Rama/Ramara

## CODE ASSESSMENT MAP

### Operations Code

1. Design and Construction of Facilities and Equipment (OP3,5,6)
2. Operations Activities
  - a. General Considerations (OP7)
  - b. Laboratory Practice (OP8, 9,10,11)
  - c. Transportation and Physical Distribution (OP13, 14,16)
  - d. Maintenance (OP17, 19)
3. Safety and Security
  - a. Occupational Health and Safety (OP22,25,27)
  - b. Process Safety Management (OP28,29,30)
  - c. Emergency Management (OP31,32,33,35,36,40,41,42,46,47)
  - d. Malicious Intent (OP48)
  - e. Critical Infrastructure/Business Continuity
  - f. Incident Reporting and Investigation (OP56,57)
4. Environmental Protection (OP58)
  - a. Emissions and Waste Reduction (OP60,61,62)
  - b. Handling, Treatment and Disposal of Wastes (OP64,65,69,70,73,75)
5. Resource Conservation (OP77,78,80)
6. Promotion of Responsible Care by Name (OP81,83,84)

### Stewardship Code

1. Expectations of Companies
  - a. Research and Development (R&D) Expectations (ST87,88,90,91,92)
  - b. Expectations Beyond R&D (ST93,94,96,97,98,99,101,103,104,105,107,111,113)
2. Expectations of Companies with Respect to Other Parties (ST 115,116,117,118,120,121)

### Accountability Code

1. Operating Site Communities (AC125,126,127,129,130,132,133)
2. Other Stakeholders
  - a. Public Policy (AC138)
  - b. Finance (AC143)
  - c. Consumers (AC144)
  - d. Transportation Corridor (AC145)
  - e. General Public (AC146)
  - f. Non-governmental Organizations (AC147)
  - g. Business (AC151,152)