



RESPONSIBLE CARE[®] Verification Report

Chemtrade Logistics Inc.

July 20 - 21, 2016



Chemistry Industry
Association of Canada



Responsible Care[®]
Our commitment to sustainability.

Disclaimer

This report has been produced by a team, convened by the Chemistry Industry Association of Canada (CIAC), to provide advice to the member-company and assist it in meeting its Responsible Care[®] commitments. The material in this report 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 that is the subject of this report to interpret and act on the report's findings and recommendations 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

This report documents the observations and conclusions of the independent verification team tasked with conducting a Responsible Care® verification of Chemtrade Logistics Inc. (Chemtrade). The verification was conducted on July 20 to 21 at Corporate Headquarters in Toronto, ON and on July 24 to July 28 at Lawrence, KS and Toledo, OH. In addition, the team conducted telephone interviews with site personnel in Prince George, BC and Beaumont, TX.

This was the sixth verification of Chemtrade with the previous verification completed in July 2013.

This report is based on a review of company documents, internal and external RC14001 audits, site interviews with key personnel and communication with corporate personnel and community stakeholders in person or by telephone.

This verification is based on CIAC's "Guidance on Jointly Administrated Responsible Care Verification and Certification Exercises, March 2012" that is a protocol recognizing the following:

"A significant number of CIAC member companies and transportation partners are also members of the American Chemistry Council (ACC). Some of these companies have chosen to audit / certify their Canadian operations to the ACC-sanctioned Responsible Care Management System (RCMS) or RC14001 standards, in addition to the requirement to undertake CIAC's triennial Responsible Care verification process."

In following this protocol, this report will highlight Chemtrade's Responsible Care® management systems relating to the Accountability Codes as well as some areas of the Stewardship code and topics related to sustainability.

As a result of the examination conducted, 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 team believes that the company is capable of responding to the Finding Requiring Action identified during the verification - summarized below and discussed in detail in the report. The verification is complete and no further involvement is required by the verification team.

Signed: _____

Gerry Whitcombe

Verification Team Leader

Date: Sept 10, 2016

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

As per the verification protocol, Findings Requiring Action must be addressed within three years unless otherwise noted. Improvement Opportunities must be reviewed and addressed. Justification is required for rejected improvement opportunities. Works in progress will be reviewed during the next verification. Successful Practices are potential improvement areas for other member companies.

Findings Requiring Action:

- As part of a Corporate Management System related to community awareness
 - The company must review shelter in place procedures and what actions to take during a plant emergency with each local community where operations pose risks beyond plant fence lines.
 - Establish a procedure that identifies a regular interval for communication of the worst credible scenario to plant site communities that is also linked to changes in site risk profile.

Works in Progress:

- The upcoming community emergency response drill In Lawrence - take the opportunity to discover if the community understood what to do in this mock emergency.
- Accountability Code management system development and implementation plan.
- The development of a new procurement department - take the opportunity to ensure that procurement work processes conform to Responsible Care code requirements 115-124 and work processes that result in contracts contain standard Responsible Care wording.
- The corporate 'CIAC Responsible Care Assessment Form' is being reintroduced into general usage.
- The development of a site risk based hazard assessment tool that shows the corresponding risk of each facility with respect to host communities.

Improvement Opportunities:

- Lawrence - the Company should encourage CAP community members to ask local ammonia supplier (Pearls) to join the CAP.
- To promote Responsible Care by Name, Chemtrade could establish greater visibility in the community via:
 - signage,
 - advertisements in local media and
 - public invitations to CAP meetings.
- Consider sharing CAP minutes with site employees.
- Consider using a 3rd party contractor to assess short haul companies as has been done by a CIAC peer company.
- Incorporate CIAC benchmarks into corporate measures.
- Discuss Responsible Care verification reports with local CAPs.
- Share Chemtrade 'chemshare' newsletters with local CAPs.
- Evaluate including CIAC's SCOPE tool in the company's Accountability Code guidance.

Successful Practices:

- The Lawrence joint CAP with the quality of its members, routine agendas, meeting schedule, quality of content, longevity and relevance is an excellent model for other Company CAPs.
- Demonstrated leadership and company support for CIAC TransCAER initiatives.
- Significant 90% NO_x reduction in Syracuse NY.
- Requirement in the corporate buffer zone policy to annually review adjacent land use zoning for proposed development.
- CHEers! recognition and reward program which includes safety, customer service, operational excellence, integrity and fun.
- Value Added Champion program recognizing Chemtrade innovators.

- Fort McMurray, AB, Shreveport, LA, and Anacortes, WA, use of the company Crisis Management Plan enabled business continuity while effectively dealing with many human issues

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 Chemtrade'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 Responsible Care Ethic and Principles for Sustainability.

The Responsible Care® Ethic and Principles for Sustainability

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, Chemtrade must, every three years, participate in an external verification intended to:

- 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;
- Identify opportunities for assisting the company when benchmarking its own practices and performance against those of its peers, thus supporting continual improvement;
- Contribute to the credibility of Responsible Care amongst company personnel and stakeholders, as well as the stakeholders of the broader industry;
- Identify successful company practices that can be promoted to peers in the CIAC membership; and
- 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). Chemtrade 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, or by contacting the Responsible Care staff at CIAC at glaurin@canadianchemistry.ca or (613) 237-6215 extension 233.

1.2 About Chemtrade

This is very brief overview of the company and its operations covered by the re-verification. Chemtrade Logistics was created in July 2001, and is a publicly traded Income fund on the Toronto Stock exchange. The company markets sulfur-based chemicals either produced or obtained under long-term removal and service agreements with by-product producers such as base metal smelters, oil refineries and industrial manufacturers. It has six major products including sulfuric acid (H_2SO_4), liquid sulfur dioxide (SO_2), sodium hydrosulphite (SHS - $Na_2S_2O_4$), sodium chlorate ($NaClO_4$), elemental sulfur (S) and phosphorus pentasulfide (P_2S_5). It also produces zinc oxide (ZnO) at three North American locations.

The company operates in three business segments (Sulphur Products & Performance Chemicals (SPPC), Water Solutions and Specialty Chemicals, and International).

In December of 2013 the company acquired General Chemicals and added water treatment chemicals, some niche chemicals and enhanced its mix of H_2SO_4 based chemicals as a result. This acquisition was not included in this verification.

Sulphur Products & Performance Chemicals

- Sulphur Products

The company obtains sulphuric acid, liquid SO_2 , and sulphur primarily from base metal smelters and oil refineries (some 40 producers), which produce these products as a result of capturing sulphur-based emissions to meet environmental regulations. They also produce merchant grade sulphuric acid and ultrapure sulphuric acid at their own plants in Beaumont, TX; Shreveport, LA; Riverton, WY; Tulsa, OK; Cairo, OH and Prince George, BC. These products are handled through terminals located in Niagara Falls, ON; Cleveland, OH; Chicago, IL; and Kansas City, KS. The chemicals are transported utilizing a fleet of over 1,500 leased railcars.

- Performance Chemicals

Sodium Hydrosulphite – SHS ($Na_2S_2O_4$) is used extensively as a bleaching agent in the pulp and paper and textile industries. Its major use in the paper industry is for bleaching mechanical and recycled pulps used primarily in newsprint production. In the textile industry its primary use is for reducing indigo and vat dyes.

Company owned plants are located in Leeds, SC. Toll operations are located in Trois Rivieres, QC (Somavrac) and Charleston, TN (Olin). Phosphorous Pentasulphide (P_2S_5) is a performance chemical used primarily as a strategic ingredient in the lubricating oil and grease additive markets for the automotive industry. This plant is located in Lawrence, KS.

- Pulp Chemicals

Located in Prince George, BC, the plant supplies sodium chlorate ($NaClO_4$) and crude tall oil (CTO), both of which are chemicals used by the pulp and paper industry. Sodium chlorate is used as a precursor in the production of Chlorine Dioxide (ClO_2), an alternative to chlorine (Cl_2) used to bleach pulp, and CTO is used as a less expensive alternative energy to natural gas.

- International

Based in Zug, Switzerland, Chemtrade Aglobis AG removes, markets and distributes sulphuric acid and liquid sulphur produced by oil refineries, non-ferrous smelters and other industrial facilities in Europe, South America, and the Middle and Far East. In 2005 the company purchased Kemmax (formerly Ruhr

Schwefelsäure GmbH) and its subsidiary, Ruhr Transport GmbH in Germany. Chemtrade Aglobis AG owns storage and distribution facility in Rotterdam, Netherlands and also a fleet of 48 trucks and trailers.

1.3 About This Verification

The verification of Chemtrade was conducted between July 20 and July 28, 2016 and included team visits to Toronto, ON Corporate headquarters, Lawrence, KS, Toledo, OH, and team telephone interviews with company personnel in Beaumont, TX, and Prince George, BC. 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 verification of Chemtrade with the previous verification completed in July 2013.

The verification team was comprised of the following individuals.

Name	Affiliation	Representing
Gerry Whitcombe	CIAC Verifier	Industry (team leader)
Andre Denis	CIAC Verifier	Industry
Ron Ormson	CIAC Verifier	Public-At-Large
Mary Ross	Public Verifier	Lawrence, KS Community

2. Team Observations Concerning the Responsible Care Commitments (Codes and benchmark and Collective Expectations)

This verification is based on CIAC's "Guidance on Jointly Administrated Responsible Care Verification and Certification Exercises, March 2012" that is a protocol recognizing the following:

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In following this protocol this report will highlight Chemtrade's Responsible Care® management systems and will look for evidence that the company is addressing the implementation expectations documented in the Accountability Code as well as some areas of the Stewardship code and topics related to sustainability.

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

- 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.
- 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 company has successfully maintained its RC14001:2013 certification. The team was invited to witness the Registrar's agent's feedback session where the current audit results and certification status were presented.

It is the team's opinion that the company's RC14001 management system sufficiently meets Responsible Care Operations Code implementation expectations.

2.2 Team Observations Concerning Stewardship Code

Many aspects of the Stewardship Code are included in the company's RC14001 certification. The team's observations on some areas not covered are given below.

2.2.1 Expectations of Companies

b. Expectations Beyond R&D (93-114)

Promotion of Responsible Care by Name (100-102)

The company has generally done an excellent job at promoting Responsible Care with its employees which was evidenced by employees recognizing that any plant emergency event could have an impact on the community and it is a major commitment to Responsible Care to make sure such events do not occur.

Some of the ways the company has promoted Responsible Care since the last verification are:

- The name of the board committee is now the Responsible Care Committee.
- Through various external activities (e.g. CIAC rail committee).
- Using RC in discussions with Canadian Transportation Authority, Ministry of Transport (and the Minister).
- As a result of the General Chemicals acquisition wherein 600 new employees being exposed to the Responsible Care name.
- In everyday discussions where Responsible Care is the catch-all for integrity.
- Currently in carrier contracts and, with the creation of a new procurement department, will be in general contracts.

During the team's discussions with the Lawrence CAP, some ideas for promoting Responsible Care in the local communities were put forward and are listed in the following opportunity.

Opportunity for Improvement:

To promote Responsible Care by Name Chemtrade could establish greater visibility in the community via:

- signage,
- advertisements in local media, and
- public invitations to CAP meetings.

2.2.2 Expectations with Respect to Other Parties (115-124)

The company currently has strong programs for establishing and maintaining relationships with motor carrier service providers and waste contractors. However, with recent company expansion, it was determined that procurement should become a corporate department and the company is in the process of designing and implementing all the required work processes. This is an opportunity to ensure that all work processes conform to the requirements specified in codes 115-124 and to promote Responsible Care by including appropriate wording into contracts.

The company has shown diligence in working with CIAC's rail committee in attempting to ensure that any short haul rail lines that may be used to deliver company goods have been determined to meet Responsible Care requirements. The team acknowledges that this has not been a straightforward or simple task. A peer company has used a 3rd party contractor to do an assessment of a short haul, similar to how the Motor Carrier Evaluation process works. The company is encouraged to investigate this process for any applicable short haul companies.

Work in Progress:

- The development of a new procurement department - take the opportunity to ensure that work processes conform to code requirements 115-124 and that those work processes that result in contracts contain standard Responsible Care wording.

Improvement Opportunity

- Consider using a 3rd party contractor to assess short haul companies as has been done by a CIAC peer company

2.3 Team Observations Concerning Accountability Code

2.3.1 Operating Site Communities (125-136)

The company has developed or inherited some dynamic and successful community dialogue processes, which, in the team's opinion meet and often exceed Responsible Care code implementation expectations.

The following are the team's specific observations and suggestions for improving the process.

The team conducted two phone interviews and one in-person interview to discuss community dialogue topics with plant personnel and community representatives. The in-person interviews were held over dinner with a group representing the Lawrence, KS CAP. In all cases, the process is well established and it was determined that terms of reference are in place and are reviewed regularly. Stakeholders have been identified and the company endeavours to keep an appropriate mix of members reflecting local circumstances. Although the Lawrence CAP is a joint effort and has been in place for many years, it stands out as a significant model or template for the company to consider for future CAP development.

The company's goal is to update all existing processes by providing clear, unified corporate direction (such as Accountability Code Guideline CGG-EHS-xxx) to ensure effective and efficient dialogue for a rapidly expanding number of facilities. The (under development) site risk based hazard assessment tool will be an important component of this guidance in assisting facilities in understanding what needs to be done based on the risk posed by the facility.

It is the team's opinion that this guideline should be specific about the following code requirements (and, in particular, provide guidance on defining 'regular' and 'ongoing'):

Operations Code

Emergency Management

Each company shall have a current, operational emergency management plan for all fixed facilities which:

- OP 36:** is communicated regularly, in its key elements, to the community in a manner which recognizes its right to know, in order to gain its co-operation and support;
- OP 40:** ensures on a regular basis that residential and industrial neighbours that could be seriously affected by a site emergency scenario know what action to take should one of these scenarios occur;

and

Accountability Code

Operating Site Communities:

Companies shall implement ongoing community awareness and dialogue processes that:

- AC 129** develop and maintain information for both responsive and proactive communication and dialogue with the community, covering products, processes, services, on-site historical waste sites, social impacts, benefits and hazards and associated risks, up to and including worst case scenarios;

These observations form the basis of a Finding Requiring Action, below.

CIAC has developed a guideline document titled “SYSTEM for COMMUNITY OUTREACH PLANNING and EVALUATION” (SCOPE) the purpose of which is to assist companies to “conduct their outreach efforts related to relevant targets, industry standards, community demographics and continuous improvement objectives”. Chemtrade should evaluate including SCOPE in their guidance.

It is the intent of Responsible Care that the process be transparent and public. Although not specifically mentioned in the codes, there is an expectation that companies will make their Verification reports public. One way to accomplish this is to ensure that the company discusses their reports with their CAPs. This is something which could be built into the Accountability Code Guideline.

The company expends considerable time and effort in establishing and maintaining CAPs but this activity and the results of community dialogue are largely unknown by company employees. The company may wish to communicate with its employees about these activities.

The company published an excellent internal newsletter (“Chemshare”) that it might consider to distribute to its local community advisory panels.

It was the team’s understanding that there would be a community emergency plan drill in Lawrence. That drill will be led the Douglas County Local Emergency Planning Committee (LEPC). As part of the debrief from that LEPC drill, the company should take the initiative to determine whether residents understood what their course of action should have been and whether they responded properly.

Also in Lawrence, the team observed that there was a local agricultural ammonia storage facility located near the plant and a local farm. The CAP and the farm owner have asked the storage facility owner to join the CAP to no avail. There may be an opportunity for the company to provide management or corporate resources to attempt to convince the storage facility owner of the advantages of participating in the CAP.

The company has a strong social responsibility history that has corporate and local direction. For example, corporately, the company has chosen to match dollar-for-dollar employee contributions to United Way and publishes local results in its ‘Chemshare’ newsletter. Locally, to list a few, there are ad-hoc donations, local

intern hiring, sponsoring of sporting events, recycling activities and various community improvement events where employee participation is supported.

Finding Requiring Action:

- As part of a Corporate Management System related to community awareness
 - The company must review, on a regular basis, shelter in place procedures and what actions to take during a plant emergency with each local community where operations pose risks beyond plant fence lines.
 - Establish a procedure that identifies a regular interval for communication of the worst credible scenario to plant site communities that is also linked to changes in site risk profile.

Works in Progress

- Accountability Code management system development and implementation plan.
- The development of a site risk based hazard assessment tool that shows the corresponding risk of each facility with respect to host communities.
- The upcoming community emergency response drill In Lawrence - take the opportunity to discover if the community understood what to do in this mock emergency.

Opportunity for Improvement

- Evaluate including CIAC’s SCOPE tool in the company’s Accountability Code guidance.
- Discuss Responsible Care verification reports with local CAPs.
- Consider sharing CAP minutes with site employees.
- Lawrence - the Company should encourage CAP community members to ask local ammonia supplier to join the CAP
- Share Chemtrade ‘Chemshare’ newsletters with local CAPs.

Successful Practices

- The Lawrence joint CAP with the quality of its members, routine agendas, meeting schedule, quality of content, longevity and relevance is an excellent model for other Company CAPs.

2.3.2 Other Stakeholders (137-152)

iv) Transportation Corridor

The company plays an active leadership role in meeting its obligations under code AC 145. Although it has a presence in all regions the team’s interviews focused on the program in British Columbia and determined that activities exceeded implementation expectations.

Successful Practice

- Demonstrated leadership and company support for CIAC TransCAER initiatives.

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 Chemtrade'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. It is the team’s opinion that this management system fully meets the implementation expectations presented therein.

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

The company's management system is based on CIACs codes of practice and is implemented using the RC14001 protocol. The company is up-to-date in its certification of RC14001.

There is strong management involvement led by a Responsible Care Committee of the Board. This committee has a charter which is publicly available at:

<http://www.chemtradelogistics.com/main/wp-content/uploads/Responsible-Care-Charter.pdf>

The committee meets at least quarterly, has a formal agenda and even though there are only two official committee members typically, all seven board members attend committee meetings.

There is a formal process used by the CEO to attest annually to the status of Responsible Care.

Company reviews of aspects related to the Responsible Care management system occur at least quarterly at all levels of management, and form the basis of reports to higher levels of management and ultimately to the Board.

Four practices normally reviewed in the Operations Code area (that is, not reviewed during this Verification) came to the attention of the team and deserve to be highlighted as successful practices.

The first relates to the company's routine practice of reviewing its facility buffer zones for proposed development, and the second to the successful use of Business Continuity planning to assist in mitigating the effects (both business and human) such as wildfires and flooding near company facilities.

The third and fourth have to do with company recognition programs that in the first case allows for peer to peer recognition, and in the second case allows for individuals or teams to be recognized for significant technical improvement.

Successful Practices

- Requirement in the corporate buffer zone policy to annually review adjacent land use zoning for proposed development.
- Fort McMurray, AB, Shreveport, LA, and Anacortes, WA use of the company Crisis Management Plan enabled business continuity while effectively dealing with many human issues
- CHEers! recognition and reward program which includes safety, customer service, operational excellence, integrity and fun.
- Value Added Champion program recognizing Chemtrade innovators.

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 Chemtrade's management system, the verification team observed the following:

The company meets its commitment to CIAC by providing all required measures used by the CIAC in providing benchmarking data. It does not formally use this data internally which the team believes is an opportunity lost. One of the purposes of these measures is to gradually move the collective bar higher by having companies compare themselves to their peers.

Improvement Opportunity

- Incorporate CIAC benchmarks into corporate measures.

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 Chemtrade's management system, the verification team observed the following:

The company has changed significantly over the last several verifications and has adapted its organization to match the needs of its growth. There is upheaval with growth but the formalization of its management system has helped to mitigate many of the negatives.

As discussed earlier as a Work In Progress, there is a significant component of the overall management system (the Accountability Code Guideline) that is under development.

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 Chemtrade's management system, the verification team observed the following:

The company has excellent audit and inspection programs which meet the intent of this step. The 'CIAC Responsible Care Assessment Form' is a program used previously to assess all facilities but has been in hiatus since its first round of use. It is the intent of the company to reintroduce this assessment and the team encourages the company to do so.

Work in Progress

- The corporate 'CIAC Responsible Care Assessment Form' is being reintroduced into general usage.

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 need 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 Chemtrade's management system, the verification team observed the following:

The team found that targets and goals are respected, that action items are monitored for completion and communications about performance are regular and comprehensive.

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 Chemtrade’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).

The team visited the Toledo, OH facility to view an implementation of the company’s Sustainable Excellence - SX program. The program is aligned with the Social, Economic and Environmental model of sustainability and has two main directing concepts, EPIC and SAFE.

EPIC stands for

- E - Excellence in Operation
- P - People First
- I - Integrity
- C - Customer Focus

SAFE stands for

- S - Safety
- A - Accountability
- F - Fun
- E - Entrepreneurial

Under these concepts various programs are purchased or developed for the purpose of continuous improvement.

One such program is Visual Workplace which combines good housekeeping and concepts like visual standards to give employees the upper hand in recognizing unsafe conditions or detecting deviations.

A program called 5S (Sort, Set in Order, Shine, Standardize and Sustain) has led to greatly improved workspaces with the removal of unneeded equipment and old documents.

A reorganization of the warehouse with vendor stocking has led to a dramatic improvement in the ability to locate the correct part quickly (and safely) at an overall savings in cost.

Equipment, piping and storage tank labelling, including direction of flow for piping has led to clear and unambiguous identification of that equipment.

A Behaviour Based Safety (BBS) program, STAR (Sustainability Through Accident Reduction), has been installed and some significant BBS performance improvements noted.

The programs are directed by a steering committee made up of all three levels at the plant with broad employee participation.

The visual result of this program is quite dramatic with excellent housekeeping, well identified equipment etc., an impeccably organized warehouse and great employee attitudes.

The verification team's related observations on the company's application of the Responsible Care Ethic and Principles for Sustainability are as follows:

- work for the improvement of people's lives and the environment, while striving to do no harm;
 - The company is fundamentally an acid regeneration company, taking a waste product (sulphur) and converting it into useful chemical products
 - Claymont, DE site revitalization (removal of derelict buildings and site remediation in partnership with US EPA)
 - Syracuse, NY reduction in NO_x by 90% by the first time use (in the chemical industry) of Selective Catalyst Reduction technology

Successful Practice

- Significant 90% NO_x reduction in Syracuse NY.
- 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;
 - Beaumont, Prince George and Lawrence community dialogue processes.
- take preventative action to protect health and the environment;
 - Behaviour Based Safety (BBS) programs are growing through the implementation of a commercial program (ProAct)
 - Safety leadership program
 - Culture of health programs, biggest losers and in the US, "MotivateMe"
- innovate for safer products and processes that conserve resources and provide enhanced value;
 - Value Added Champion program
- engage with our business partners to ensure the stewardship and security of our products, services and raw materials throughout their life-cycles;
 - Industry association membership (e.g. Sulphur and Phosphorous Industries)
 - Worked with trucking companies, suppliers and other vendors to move from rail shipments of toxic inhalation hazard chemical (TIH) to trucking when shipment by rail became uneconomical.
- understand and meet expectations for social responsibility;
 - Matching United Way funds
 - Matching donations in Fort McMurray (wildfires) and Shreveport (flooding) within a week of the disasters
- 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;
 - CIAC and ACC activities and events
 - In Canada
 - Regional CIAC committees
 - TransCAER
 - Leadership Groups
 - Railway Committee

- Promote awareness of Responsible Care, and inspire others to commit to these principles.
 - Responsible Care giveaways - logo on jackets, coats, caps, sweatshirts and signage
 - Logo on back on Purchase Orders and Bills of Lading

5 Verification Team Conclusion

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 team believes that the company is capable of responding to the Finding Requiring Action identified during the verification - summarized above and discussed in detail in the report. The verification is complete and no further involvement is required by the verification team. .

Company Response to Verification Team Report

On behalf of Chemtrade, I have reviewed this verification report. The observations and conclusions contained in the report have been discussed with the verification team.

Chemtrade 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.

We will give consideration 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. Plans will be developed and implemented to respond to the Findings Requiring Action identified by the verification team. 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.

Name	Mark Davis
Position	President, CEO
Company	Chemtrade Logistics
Date	January 12, 2017

Interview Lists

A: Company Personnel Contacted During Verification Process

Name	Position	Location
Mark Davis	President & CEO	Head Office, ON
Marc Hunziker	Director, Responsible Care and Sustainable Excellence	Anjou, QC
LaMont Powell	Director, Responsible Care	Carlisle, SC
Jim Warren	Director, Health & Safety	Carlisle, SC
John Casisa	Health & Safety Specialist	Huntersville, NC
Leon Pruett	Training/Program Development Manager	Carlisle, SC
Rodger Hendersen	Operations Manager	Prince George, BC
Brandon Marchand	Plant Manager	Prince George, BC
Sarah Martin	EHS Supervisor	Prince George, BC
Randall Sarrazin	Transportation Technical Manager	Prince George, BC
Cheryl Champion	Logistics Specialist	Head Office, ON
Heather Gosling	Logistics Administration Manager	Head Office, ON
Rick Bullis	Transportation/ER/Security Manager	Head Office, ON
Drew Fleming	Plant Manager	Lawrence, KS
Dave Baker	Maintenance Supervisor	Lawrence, KS
Khalil Bird	Operations Manager	Lawrence, KS
Fred Bell	EHS Supervisor	Lawrence, KS
Chris Roatch	Plant Engineer	Lawrence, KS
Bob Cooper	Maintenance Mechanic	Lawrence, KS
Evan Thezan	Maintenance Mechanic	Lawrence, KS
Rodney Kessler	Sr. Maintenance Mechanic	Lawrence, KS
Trevor Loche	Operator	Lawrence, KS
Jamie Prager	Operator	Lawrence, KS
Mike Mowrey	Tower Field Operator	Lawrence, KS
Brett Edwards	Sr. Reliability Engineer	Oregon, OH
Chris Sype	Operations Manager	Oregon, OH
Tom Hines	Maintenance Supervisor	Oregon, OH
Keith Jackson	EH&S Regional Manager	Oregon, OH

B: External Stakeholders Contacted During Verification Process

Name	Company / Organization	Location
Bill Stewart	Neighbourhood Rep	Prince George, BC
Shyam Sheikla	Lamar University	Beaumont, TX
Marilou Cavin	Woodlawn Elementary	Lawrence, KS
Mary P Ross	Nunemaker-Ross Inc.	Lawrence, KS
Delores Todd	Neighbourhood Rep	Lawrence, KS
Jack R Todd	Neighbourhood Rep	Lawrence, KS
Ted Boyle	North Lawrence Improvement	Lawrence, KS
Gordon Leong	ICL Performance Products	Lawrence, KS
Shaun Coffey	Lawrence-Douglas County Fire/Medical	Lawrence, KS
Barbara Schnitker	Lawrence-Douglas County Health Dept. Retired	Lawrence, KS
Shane Munsch	ICL Performance Products	Lawrence, KS



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