RESPONSIBLE CARE® Verification Report

MEGlobal Canada Inc.

December 2, 2010
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 AND TEAM CONCLUSIONS

The company’s decision-making and actions are clearly underpinned by the Responsible Care ethic. The overall management system was confirmed to be self-healing, in that the process focussed on continual performance improvement through identification of deficiencies and actions to correct them in a timely manner.

Notwithstanding the above, several opportunities for improvement were identified. A number of best practices were also observed. These are described in the body of the report.

The re-verification team recommends that the CIAC officially recognize this reverification with an award at the next suitable occasion.

Signed: Dave Mack
Team Leader

Date: March 16, 2011

For more information on this or on the company’s original report for verification of Responsible Care-in-Place, please contact your local company site or the company’s overall Responsible Care coordinator:

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1. INTRODUCTION AND OVERVIEW

1a) The company
This is the report by the verification team on those operations of MEGlobal Canada Inc. which are covered by the company’s commitment to the Responsible Care initiative of the Chemistry Industry Association of Canada. A description of the company in Canada and which operations are covered by this report can be found in Appendix 1.

1b) Responsible Care
Responsible Care is an initiative of the Chemistry Industry Association of Canada (CIAC) by which the association’s members and partners commit to be, and to be seen as, responsible companies within Canadian society. It is based on an ethical approach to the safe and environmentally sound management of chemicals – an approach which started in Canada but has since spread to over 45 countries around the world.

The Responsible Care Ethic:

We are committed to do the right thing and be seen to do the right thing.
We are guided towards environmental, societal, and economic sustainability by the following principles:

- We are stewards of our products and services during their life cycles in order to protect people and the environment.
- We are accountable to the public, who have the right to understand the risks and benefits of what we do and to have their input heard.
- We respect all people.
- We work together to improve continuously.
- We work for effective laws and standards, and will meet or exceed them in letter and spirit.
- We inspire others to commit themselves to the principles of Responsible Care.

The ethic is supported in Canada by six codes of practice covering relations with the communities where members’ facilities are located and also responsible management throughout the product life cycle. Information on these codes of practice and related activities is available from company personnel listed in Appendix 2 of this report, or via the CIAC web site www.canadianchemistry.ca (click on the tab for Responsible Care).

1c) Expectations of CIAC members and partners
Each CIAC member or partner company must formally commit to the ethic, principles and codes of practice of Responsible Care as a condition of membership in the association.

Progress in implementing these obligations must then be reported to CIAC, both to peers at special networking meetings and also via a formal reporting system to the association. Three years is the typical time allowed to new members for implementation. The association monitors progress and follows up by arranging for assistance where necessary to ensure that each company eventually meets its commitment.

When a company considers that its management processes are sufficiently comprehensive that they meet each of the 151 individual code requirements, it advises the association that implementation is complete to the stage of “Responsible Care-in-Place”. Completion in this sense does not imply that nothing further needs to be done, but that a key milestone has been reached in a process of continuous improvement.
1d) Verification
A company’s declaration that the expectations of Responsible Care are being met is an important first step in the verification process, which leads to confirmation and recognition of this by a team of industry and public representatives. Verification is conducted to strict protocols, developed by the association’s members and others including several critics of the chemical industry and its operations. The first verification takes place when the company first states that its performance meets the expected level (Responsible Care-in-Place). This verification is designed to confirm, for the company’s peers in CIAC and the public, the existence of a company-wide ethic and management systems which ensure that the principles and codes of practice of Responsible Care are not only in place but are also practised and continuously improved within the organization.

Subsequent verifications are also conducted using a different protocol, approximately every three years after formal acceptance of the first verification, to ensure that the ethic and management systems of Responsible Care are firmly rooted in all the company’s operations. This is known as re-verification.

Each 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.

1d) i) Verification of Responsible Care-in-Place
For the purposes of this examination, a portion of the 151 code requirements is sampled in depth. These items are grouped into seventeen management systems, each of which is examined using a series of questions. Some of the questions are sent to the company in advance of the verification visit, so that supporting documentation, etc. can be available for prompt examination if desired. Additional questions are asked at the discretion of the team during the visit.

The approach is “top-down” rather than the “bottom-up” used in conventional audits, and the style of questions is intentionally open-ended, so that the answer cannot be a simple yes/no but calls for explanation. The questioning process starts with the executive responsible for chemical operations in Canada, and works down through the organization to examine the senior level intent and the corresponding support by action at the operating level.

Questions are generally of the following nature:
- does the organization have an effective management system in place to ensure understanding of Responsible Care?
- what is the process to determine and communicate the acceptable level of performance?
- what is the process for assessing the performance of the system and effecting follow-up to meet or exceed the acceptable level of performance?
- what is the process for ensuring up-to-date documentation?
- do sufficient resources appear to be, or are thought by employees to be, in place?

The findings are summarized in a report which highlights:
- actions required by the team before they consider the company meets the expectations of Responsible Care;
- opportunities for improvement, which are recommended but not mandatory;
- recognition of any exemplary practices of the company which could be a model for other CIAC members.
The report is given to the company and CIAC, and the company is expected to share the report with interested persons in its communities as part of its dialogue process. If the team considers that actions are required before sign-off, they will arrange for follow-up to confirm that these are complete, and advise the company and CIAC in writing when these have been met to their satisfaction.

**Responsible Care-in-Place verification of MEGlobal Canada Inc.**

Company name at time: MEGlobal Canada Inc.
Date of verification (visit): June 18 – 21, 2007
Locations visited: Prentiss and Fort Saskatchewan, Alberta
Team follow-up needed: No
Date of final sign-off: August 20, 2007

This Responsible Care-in-Place verification report is available from the contact at the company from whom you accessed this report, or from the company contact shown on page 2 of this re-verification report.

**1d) ii) Re-verification**

Approximately every three years after team acceptance of Responsible Care-in-Place, the CIAC schedules further verifications using a modified approach. The team is similar to that for the original verification, with at least one team member from the previous verification but a different leader.

In re-verification the team probes more deeply to examine how well the ethical basis of Responsible Care is understood and adopted within the company, and also how effective are the company’s management systems in applying the ethical principles throughout the company’s operations. This involves not only whether the company intends to do the right things, but also how it monitors activities and results and takes corrective action when deviations occur (often referred to as the Plan-Do-Check-Act parts of the management system).

For re-verification the company is given a more comprehensive list of documentation the team will need to see. Part of this must be sent to the team so they can study it in advance. The questioning process is also more open, in that the team does not have to cover every topic in depth but can probe where they feel it is most relevant for that individual company, plus any areas where the company itself would like feedback on its performance.

After studying the information the team meets with the company to plan the visit stage of the verification, at which a schedule is agreed covering people the team wishes to interview in depth during the subsequent visit stage of the verification process. Most of these will be company personnel, but some will be representatives of organizations with which the company has business relationships – customers, transporters, etc. – and of local communities where plants, etc. are located.

The team examines to determine how strongly the Responsible Care ethic appears to be part of the company’s way of doing business, including awareness of Responsible Care and its implications among the company’s employees. The examination then progresses into a broad-ranging review of the company’s management systems for Responsible Care, with a special investigation into certain topics highlighted by CIAC in the verification protocol.

The team looks at how effectively the company’s management systems ensure that Responsible Care principles and code obligations continue to be met, as established in the initial Responsible Care-in-place verification. In subsequent verifications, however, the questioning process also considers how the company tracks and improves its performance regarding these obligations, including how performance measures are established and targets met (what is measured, what are the goals and how are they achieved). Actions taken on concerns, suggestions and recommendations raised in the last verification report are examined, as are significant issues and incidents that have arisen since the
previous verification. The team then looks at how the company shared the results of this verification with the local community, and examines how robust the ongoing process of community dialogue appears to be and how issues and concerns are being identified and addressed.

The highlighted topics of special focus are ones where the feedback from the verification process and from the association's members has suggested the value of a closer examination of the general membership performance and comparison with the intent of the codes of practice. This does not necessarily imply that any given company is not performing well, but reveals the range of performance and identifies both cases where some improvement is recommended and also examples from which others can learn.

The report below presents the findings of the team from this re-verification of MEGlobal Canada Inc. The report does not address all aspects of Responsible Care, as this was covered by the report of the original Responsible Care-in-Place verification. Instead, it focuses more on the items where the team felt there was an opportunity or need for improvement, plus any improvements or practices which are so significant that they should be shared with other CIAC members and partners as possible examples.

For more context or explanation of any of the items below, please get in touch with the contact at the company from whom you accessed this report.

In the following sections of this report, Opportunities for Improvement (recommended but not considered mandatory) are shown in italics, while Best Practices are shown underlined).

2. GENERAL FINDINGS OF THE TEAM

2a) Statement on the Responsible Care Ethic
Throughout the interview process the team checked for evidence that the Responsible Care ethic was visible and at work in the company, guiding the company’s judgement, decisions and actions.

FINDINGS

Overview:
The Responsible Care ethic is well understood and is considered as a way of doing business. This has been reinforced through the Chief Executive Officer’s declaration of support for the company’s documented Responsible Care Global Charter. The ethic has been integrated into all aspects of the organization, and was seen to guide actions and decisions throughout the operation.

The company is actively engaged with its key stakeholders, and sees Responsible Care as being that which must be done every day to maintain its “licence” to operate with those stakeholders. The CIAC Executive Contact, who is also the Vice President of Manufacturing, and other key management and support staff are fully committed to Responsible Care, and work at promoting the ethic to others.

The company is active in CIAC activities, and on a corporate level, through its involvement with the Gulf Petrochemicals and Chemicals Association (GPCA), offers resources to promote Responsible Care in the Arabian Gulf region. For example, in 2008 the company’s Chief Executive Officer (CEO) and President gave a presentation at a workshop on Responsible Care organized by the GPCA, entitled “Responsible Care® Pays! MEGlobal’s commitment to the Responsible Care approach”, and in 2010 the CEO spoke at a Petrochemicals Technology Conference held in Qatar, with a presentation entitled “Sustainability and the Petrochemical Industry: Realities-Challenges-Myths”.

A new Responsible Care Ethic and Principles for Sustainability have recently been developed by the CIAC. A fact finding questionnaire in this regard has been completed by the company. This is included as Appendix 3 to this report.

Best Practices:

i) Given the limited size of the organization, the level of support given to the CIAC and the promotion of Responsible Care outside Canada. Examples include representation on the CIAC Board, Management Committee, various technical committees and regional groups as well as providing leadership in establishing Responsible Care in the Arabian Gulf Petrochemicals Industry Association.

2b) Overall Responsible Care Management System

It is a requirement of Responsible Care that companies have documented, sound management systems capable of ensuring that all operations of the company across all business units, functions and sites meet the ethic, codes of practice and other expectations of Responsible Care on an ongoing basis. A sound management system drives continuous improvement, and has the following attributes:

- **Plan**
  - review code requirements
  - benchmark best practices
  - get input from stakeholders
  - decide on best approach
  - set targets for performance
  - assign responsibility

- **Do**
  - document
  - train people
  - assign resources
  - carry out activities

- **Check**
  - audit
    - measure performance of system
    - measure performance from system
    - obtain stakeholders’ feedback
    - assess employees’ performance

- **Act**
  - follow-up on audit findings
  - communicate performance, get feedback
  - reward or correct employees
  - repeat Plan steps

There must be such management systems both for the overall management of the company and for each code element. This section 2.3 covers the team’s findings with respect to this overall management system, and section 3 below covers the specific code elements that were reviewed in the re-verification.

**FINDINGS**

**Overview:**

The company utilizes an integrated management system referred to as the Operating Discipline Management System. It is based upon the plan-do-check-act continual performance improvement cycle, and integrates the company’s management systems for manufacturing, quality, environment, health, and safety. The system provides access to policies, requirements, processes, best practices and procedures.
Management system gap assessments have been completed against each of the six existing Responsible Care Codes of Practice, and a first pass gap assessment has been conducted against three new codes which have recently been developed to replace the original six.

Objectives are managed through a process referred to as the Managing Implementation Plan, which includes specific environment, health and safety goals.

Training is managed through a computerized system referred to as My Learning, which is used to specify and log training for employees.

Third party audits (i.e., environment, health and safety, product stewardship, and reactive chemical / process hazard analysis) are conducted on a three year frequency. Self-assessments are conducted yearly for some of the Operating Discipline Management System elements, while others are conducted on a three year frequency. Management system reviews are completed on an annual basis. The management system review results are utilized by the company’s CIAC Executive Contact and senior plant leaders to assess ongoing conformance with Responsible Care. Action items arising from the above audits and reviews are tracked to completion through a process referred to as the Event & Action Tool.

Opportunities for Improvement:

i) During self assessments of Operations Discipline Management System elements, as well as the business process owners who have primary responsibility to do the assessments, consider including individuals from other areas to bring a broader perspective to the review.

Best Practices:

i) The scope of the entire documented Operations Discipline Management System which is based upon the plan-do-check-act continual performance improvement cycle, with defined links to the Responsible Care Codes of Practice.

ii) The company’s Event and Action Tool which tracks actions arising from various work processes (e.g., incident investigations, audits, etc.) with automated follow-up to confirm that tasks are completed correctly and as scheduled by those assigned to same.

2c) Follow-up on Findings in Last Verification Report
The team reviewed how the company addressed the findings requiring action and opportunities for improvement cited by the previous verification team in their report to the company. Certain follow-up items are covered in the specific topics below.

FINDINGS

Overview:
During the last verification there were no findings requiring action. Twenty eight improvement opportunities were identified. These improvement opportunities were reviewed and assigned to specific company personnel for follow-up. The status of the action taken on the improvement opportunities were reviewed frequently for progress and once completed, the actions taken were validated for effectiveness.

The last verification report was initially shared with the company’s Community Advisory Panel members along with the actions to be taken to address the improvement opportunities and then later to review progress on the actions. The report was also made available on the company’s internal intranet and external internet websites.
Opportunities for Improvement:
   i) At both facilities ensure that future Responsible Care verification reports are directly communicated in some way to those neighbours who could potentially be impacted by plant operational incidents.

2d) Response to Incidents and Concerns since the last Verification
Since the way in which unplanned situations are handled shows the influence of the Responsible Care ethic and responsiveness of the management system, the team looked at the issues, incidents and concerns that have arisen since the last verification and how the company has handled them. Some of these may be covered under individual topics below, as noted.

FINDINGS

Overview:
A comprehensive process, utilizing established investigation methodology, is used to analyse incidents, unplanned events, and non-conformances, as well as near misses. Actions aimed at preventing recurrence are identified, with appropriate follow up and communication of lessons learned. The Event and Acton Tool noted in section 2b) of this report is used to ensure follow-up actions are tracked to completion.

Review processes exist at the local, functional and corporate levels, and manufacturing leadership review all major incidents and monitor for overdue corrective actions.

All reportable and near miss incidents are recorded in a computerized data base. These incidents include those related to personnel safety, loss of primary containment, process safety, government reportable, motor vehicle, neighbour complaint, transportation safety, customer / terminal / distributor facility, and security.

In an attempt to prevent incidents associated with glycol products in the market place, the company works very hard to ensure that its products are only sold and used into supported applications, this includes working with industry groups and other companies to ensure that glycol products are not misused.

Opportunities for Improvement:
   i) Establish a process that will trigger an experience based assessment as to the effectiveness of follow-up action items arising from incident investigations.

Best Practices:
   i) The company requirement to internally report all spills over 50 litres even if non-hazardous or within secondary containment, and investigate these to prevent recurrence. This helps to create a zero spills attitude among all personnel.

2e) Performance Measures
The ‘check’ step of a management system is the part that shows the effectiveness of the system, and a key question is: “What does the company check as its indicator of performance?” For a few items – emissions & wastes, occupational safety & health, incidents related to transportation or process operations – CIAC specifies measures for reporting under Responsible Care.

Most other areas are left to the discretion of each member or partner. The team was asked to review and comment on the measures used by the company to track and improve performance. Some of these are covered under specific sections below, but general comments are given here.
FINDINGS

Overview:
The current key performance measures used to monitor improvements against Responsible Care outcomes are referred to as the company’s FOCUS 2012 Goals. The FOCUS 2012 theme was initiated to concentrate on two key areas where the company can emphasize its commitment to the safe and responsible management of its products.

One of the two focus areas is referred to as Target Zero Environment Health and Safety Incidents, and includes personal injuries / illnesses, loss of primary containment, process safety incidents, agency reportables, and motor vehicle incidents. The other area is referred to as Reduced Environmental Footprint, and includes reduction of priority chemical and other emissions, reduction in CO2 emissions intensity, and reduction in fresh water usage.

These goals are monitored, reported and updated monthly for the Target Zero Environment Health and Safety Incidents goal and annually for the Reduced Environmental Footprint. To accomplish these goals, the entire organization has been focused on making progress and improving performance in these areas. The company also reports its emissions, wastes, transportation incidents, occupational injuries and illness, and process-related incident data into the CIAC membership data base.

In addition to the above community concerns are tracked and there are on-going efforts to minimize the impact of company operations on local communities.

Opportunities for Improvement:

i) Raise the visibility of existing leading indicators (i.e., activities with a proactive preventive focus) and assess the relationship between the leading indicators and performance. Consider including some key Responsible Care outcome related leading performance indicators in future goals.

3. TEAM FINDINGS FOR SPECIFIC CODE MANAGEMENT SYSTEMS

3a) Process Safety Management (PSM)
The team looked at how the hazards and risks from potential episodic (‘sudden’) incidents are identified and controlled at the company’s sites, including awareness and understanding of the methods used for assessment and the techniques for hazard control, and how these are applied and kept current. This includes how the company’s sites rank based on the CIAC High Inventory Site Assessment Tool – whether they meet criteria for the “essential” level of PSM, and how the company has assessed the value of aspects beyond the essential level –

FINDINGS

Overview:
Worst imaginable case incident scenarios have been identified for both sites as well as those scenarios which may be considered as more credible with respect to their likelihood.

To address aspects of hazard control the company has applied a process referred to as Layers of Protection Analysis. This is a structured approach to the identification of hazards, and provides specific focus as to the actions required to reduce or eliminate those hazards.

Worst Case and Emergency Planning Case scenarios are periodically evaluated and are revised as standards or models change.
There is a comprehensive process safety program in place which addresses risk assessment, hazard reviews, reactive chemicals reviews, equipment integrity, loss prevention, regulatory requirements, hazards awareness, community awareness and emergency response, management of change, incident and near miss tracking, and auditing.

Both sites have attained the second level (i.e., Enhanced Level) of three possible levels of process safety program implementation as defined by the CIAC High Inventory Site Assessment Tool.

Opportunities for Improvement:
   i) Establish a plan as to how the company might move from the “Enhanced Level” to the highest level (i.e., Excellent Level) of process safety, according to the CIAC High Inventory Site Assessment Tool. Document the rationale where any decision has been made not to move to this highest level

Best Practices:
   i) The entire documented process safety management system which is comprehensive and completely addresses all state of the art aspects of process safety.
   ii) The Layers of Protection Analysis program which identifies site specific process hazards and identifies actions to mitigate those hazards.

3b) Site Security & Emergency Response
The team looked at how the company had identified and assessed the security vulnerability of its sites, and how it had selected and implemented countermeasures to address security concerns. The team also examined how the company assesses the full range of risks its site operations may present to their communities, together with the process for liaison with local emergency officials at each site, and for developing, coordinating and testing site emergency plans with those of the community.

FINDINGS

Overview:
Security vulnerability assessments have been completed and follow-up actions have been addressed and documented. There is also a security policy in place for both sites.

Site personnel access is controlled using a card access system, and vehicle access is limited to designated gates. Vehicle and trunk inspections are done at random. Information Technology security includes a fire wall and computers are expected to be locked when not in use. Computers are password protected and internet traffic is monitored.

At the Fort Saskatchewan facility a process referred to as Scenarios of Significance has been established. This identifies potential incident scenarios and uses of the information obtained to assist in preparing for potential emergencies.

There is a corporate crisis management plan in place, and both sites have established emergency response plans which include all of the activities necessary to resource, prepare, plan and respond to anticipated potential site and community impact emergencies. This includes on and off site training for emergency responders. There is a defined process in place for debriefing emergency incidents. This includes a follow-up process to ensure that all actions items have been addressed.

The Fort Saskatchewan site is a member of an organization referred to as the Northeast Region Community Awareness Emergency Response group which is a regional mutual aid emergency response association established to coordinate the sharing of emergency response resources, personnel and services available in the region. The organization was formed to develop and improve
upon the region’s emergency response capabilities. There is an information update telephone line to
the site allowing residents to call the number if they have questions about industrial site activities such
as loud noises, flaring, traffic levels or unusual smells. There is also a call out system that Northeast
Region Community Awareness Emergency Response members can use to provide residents with
information about more serious (non-emergency) incidents. The call out system supports the
municipal and provincial notification systems used to convey emergency and safety information to
residents. The Prentiss site is a member of the Lacombe County Mutual Aid Organization. This
organization provides additional resources in a coordinated response to deal with all natural and
industrial emergencies. The organization regularly practices emergency response, together with all its
members, to ensure the mutual system is effective.

The site maintains a community update telephone line to the site, allowing residents to call if they have
questions about site activities. A call out system is also available, in the event of emergencies that
require neighbours to take action. Regular drills are carried out for on site and community emergency
scenarios.

Opportunities for Improvement:

i) Consider inserting a requirement into supplied service contracts to carry out background
checks on all contract employees in key positions, identified by MEGlobal, coming to
company facilities.

ii) At the Prentiss facility consider implementing the Scenarios of Significance process that is
in place at the Fort Saskatchewan facility, which identifies potential incident scenarios and
uses this information for emergency preparedness event planning.

iii) In collaboration with local authorities and in consultation with the company’s Community
Advisory Panels, at both facilities, establish a process to test, through to its conclusion, the
community emergency call system to potentially impacted neighbours (i.e., not just a test of
the call system technology but to check that people have actually been contacted and
advised what to do).

iv) In collaboration with the local authorities and in consultation with those potentially affected,
check the effectiveness of the emergency notification process for people working in fields
surrounding the Prentiss site.

v) Expedite the current plan to carry out a company crisis management plan exercise
according to, or earlier than, the schedule date in 2011.

vi) Build severe weather complications into site emergency exercise scenarios (e.g., people
exposures to heat or cold, response equipment breakdown/unavailable due to freezing/bad
road conditions, etc.).

vii) Look for opportunities to share information with the local hospital emergency staff on
potential injuries and exposures to employees.

Note: Some activity has taken place on such information sharing.

Best Practices:

i) The Scenarios of Significance process in place at the Fort Saskatchewan facility which
identifies potential incident scenarios and use of this information for emergency
preparedness event planning.

3c) Product Stewardship

For this aspect of Responsible Care, the team examined the company’s processes for assessing the
exposures of people to its products over their life cycles, assessing the potential health implications of
these exposures, communicating information to those potentially affected and taking action to prevent
health impacts; ensuring that their products are not used by terrorists, the illegal drug industry or
others who might use them for illegal purposes; and ensuring that suppliers of chemicals are meeting
the intent of Responsible Care.
FINDINGS

Overview:
Company products have been extensively assessed for risks both internally and externally by a number of organizations. In addition, the company participates actively in various industry groups that specifically focus on ethylene glycols such as the American Chemistry Council Ethylene Glycol Panel. Product safety assessments for the company’s products are available to the general public. These are intended to offer general information about chemical products or product families. They are written in non-technical language and cover basic hazards, risks, and risk management.

There is a documented stewardship program in place which addresses product management in the areas of health, safety and environmental information, risk characterization, restricted/unsupported applications, design, employee education and use, contract manufacturers, suppliers, swaps/trades/tolls, distributors and resellers, and customers.

Opportunities for Improvement:

i) In support of established practice in this regard, formally document a new customer assessment program that considers their ability to effectively protect people, property and the environment throughout the handling and use of company product, to be applied prior to confirmation of contract.

Note: This should also include for a similar assessment of carriers used by customers to pick up product.

3d) Environmental Management
In addition to examining in general the company’s performance in reducing its environmental “footprint”, the team looked specifically at the company's performance history and 5-year projections regarding greenhouse gas emissions. This included actions both taken and planned, and whether through direct reduction of emissions or indirect reduction through such measures as improved efficiency in use of energy or materials, changes in technology, etc.

For fact-finding purposes only, to assist CIAC in developing recommendations for addressing growing concerns over water consumption, the team also reviewed any actions taken by the company to identify and reduce its usage of water.

FINDINGS

Overview:
There is a clear focus evident on reducing the impact of company operations on the environment.

There is a documented pollution prevention program in place which addresses wastes and emissions, air quality, water quality, and soil and groundwater.

The manufacturing facilities have achieved more than a 70% reduction in priority chemical (ethylene oxide, acetaldehyde and formaldehyde) emissions and more than a 40% reduction in CO2 emissions intensity since 2005. Using 2005 as a baseline year, the company aims, by 2012, to achieve a 70% reduction in priority chemical emissions, an 80% reduction in other chemical emissions, a 40% reduction in CO2 emissions intensity, and a 15% reduction in fresh water usage.

For the fifth consecutive year the Alberta Government, through a program referred to as EnviroVista, has recognized the Prentiss site operation as a leader in promoting environmental excellence. This
award recognizes environmental performance that exceeds the expectations of the province’s legislation and demonstrates responsibility, stewardship and commitment to continuous improvement.

3e) Visibility & Employee Awareness of Responsible Care
Here the team looked at how the company seeks to make Responsible Care a visible part of its facilities and its internal and external communications, and how it ensures that all employees understand the essence of Responsible Care and its relevance to their job activities and decisions.

FINDINGS

Overview:
There was a general awareness of Responsible Care among employees and those who were contacted were able to relate the essence of the ethic to their everyday work.

Numerous communication tools are used to promote Responsible Care awareness among employees. This includes the company’s Managing Implementation Plan, news line stories, web sites, communication meeting presentations, and conference room posters. Public communication is done via the sites’ Community Advisory Panels, etc. Since 2007, two surveys of employee knowledge of Responsible Care have been completed, with the latest one completed in December 2009 / January 2010.

Opportunities for Improvement:

i) To enhance awareness of Responsible Care, establish a specific (by name) orientation session for new employees, and an update for existing employees, that reviews the Ethic, Principles and Codes of Practice, and how the company complies with these requirements through its environment, health, safety and community outreach management systems, etc.

ii) To promote Responsible Care beyond the employee base, establish a basic (by name) orientation overview for contractors which describes the Ethic and Principles and how this applies to the work that they will be doing.

iii) Upgrade the Prentiss site visitor orientation video to promote Responsible Care similar to that in the Fort Saskatchewan site video.

iv) Enhance Responsible Care visibility both inside and outside the company by ensuring that the logo and attendant wording is added to all business and commercial documentation.

v) Consider re-naming the Corporate Health & Safety Sub-committee to become the Responsible Care & Sustainability Sub-Committee.

3f) Workplace Health & Safety
The team looked at the company’s processes for continuous improvement in protecting the safety and health of employees, contractors and visitors.

FINDINGS

Overview:
There is a clear focus evident on continually improving the company’s health and safety performance, through a belief that all occupational injuries and illnesses are preventable.

There is a documented health and safety program in place which addresses identification and evaluation of hazards, behavioural expectations, and operational controls and procedures. There is also a documented program in place which outlines the requirements for ensuring the health and safety of contractors and visitors.
The health and safety hazard identification process includes job safety analysis, exposure assessments, health assessments, workplace hazardous materials information, material safety data, and hazard communications, indoctrination, and training.

The health assessment program defines for employees, based on their potential for chemical, physical or biological assessment exposure and their age, the baseline medical assessment and the health surveillance and screening examinations required.

In addition, to prevent and control health and safety hazards at the job/task level, written operational controls and task procedures are implemented for activities such as confined space entry, electrical work, hot work, hydroblasting and pressure washing, lock-out and isolation of energy sources. New health risks recently discovered by medical sciences and/or as a result of studies conducted by medical sciences are communicated to employees as appropriate.

In additional routine workplace safety observations there is program in place whereby complete jobs are audited in the field for safety behaviours and conditions etc. This program is referred to as Change Maker Audit.

For the second year in a row, the company has received a CIAC award for excellent safety performance over the last five years.

Opportunities for Improvement:
   i) Consider checking to ensure that contractor employees feel free to report unsafe situations within their own companies.

(Note: During an informal discussion, one contract individual indicated some difficulty with this.)

Best Practices:
   i) The pre-job task analysis process which includes routine and non-routine work related to process operations, maintenance, laboratory activities, office work, driving, and travel.
   ii) The Change Maker Audit program whereby entire audits of jobs in progress are undertaken by trained staff on a scheduled basis.
   iii) The use of contracted qualified safety professionals to act as safety watches during turnarounds, as opposed to the traditional approach of hiring general contract employees and providing them with the minimum basic training to carry out this work.

3g) Site Risk Communications
The team looked at the company’s management system for ongoing communication and dialogue on the risks of its site operations with potentially affected communities.

FINDINGS

Overview:
In November 2008, the Prentiss site conducted a public meeting to discuss its worst case and emergency planning scenarios. All neighbours within three kilometres received an invitation, and the meeting was advertised in local newspapers. The next communication of worst case scenarios is planned for 2011.

In Fort Saskatchewan, the last community review of the worst case scenario was covered in 2006. Since the Fort Saskatchewan site has engaged its Community Advisory Panel in a variety of ways with respect to risk communication. In 2009, the Community Advisory Panel received a presentation on a significant site release scenario and activation of all emergency measures. In 2011, there are plans to work with the broader industry group in Fort Saskatchewan, through an organization referred to as the
Northeastern Region Community Awareness and Emergency Response group, to update the community on worst case scenarios through an open house.

**Opportunities for Improvement:**

i. At the next community site operations risk communication at the Fort Saskatchewan facility, scheduled for 2011, ensure that, as well as general communications, direct contact is made with all MEGlobal neighbours who may be impacted, with information on the nature of the potential impact and what to do in an emergency.

ii. In future community site risk communications include a test of knowledge regarding “shelter in place”.

3h) Dialogue Process with Communities

The team looked at how the company’s broader process for dialogue with its communities has been working since the previous verification, including the identification of stakeholders, community issues and concerns, how concerns were addressed and the choice of dialogue methods. They looked at the effectiveness of the management system in ensuring the company is planning, implementing, evaluating and continuously improving its relationship with the community.

**FINDINGS**

**Overview:**

There is a documented management system in place for community dialogue that addresses the requirements for community outreach. Both sites participate with Community Advisory Panels which have proven to be very effective in providing appropriate dialogue between the company and the communities in which it operates. The Community Advisory Panels meet five times a year.

The company uses a variety of tools to communicate with its community. This includes open houses, exhibitions, and tours. News releases and briefings are provided to the media as required, and correspondence, newsletters, e-mail, and publications are used to distribute information to target audiences.

**Opportunities for Improvement:**

i. Consider reviewing the process and results of annual management system reviews with representatives of the company’s Community Advisory Panels.

ii. Consider providing a simplified overview of the Layers of Protection Analysis program to Community Advisory Panels.

iii. Look into the possibility of addressing community issues that may be common to the MEGlobal Prentiss facility and the nearby NOVA Chemicals facility through joint Public Relations meetings.

**Best Practices:**

i) The membership, dialogue, level of engagement and trust within the Community Advisory Panels in place at both facilities.

ii) The effort made by members of the company’s senior executive to meet with the Community Advisory Panels.

3i) Social Responsibility

In this area the team was not looking for evidence that the company’s performance met certain expectations, but rather for information on ways the company has provided benefits to, and worked to understand and further the social aspirations of, its local communities and broader society beyond the boundaries of EH&S performance. Aspects considered include working with schools, progressive employee programs, support for charitable work, policies for investments and operations abroad, workplace diversity, corporate ethics policies, policies for suppliers in social responsibility, etc.
FINDINGS

Overview:
The company has a strong commitment to the community and contributes though monetary funding and volunteering. While focusing on community need and sustainability, the company’s community investment program has benefitted youth, education and support of local environmental initiatives. Employees can approach the company to support their own local community interests. The company believes that good corporate citizenship includes being a responsible operator, an employer of choice and enhancing the communities where it operates.

There is a clearly defined Code of Business Conduct document in place which addresses company values, respect for employees, protection of the environment, assets and reputation, market place and financial integrity, and reporting.

3j) Engagement with Elected Officials
Since part of Responsible Care is a commitment to assist in the processes of sound public policy development consistent with the criteria for sustainable development, the team reviewed the company’s process for establishing ongoing relationships with elected officials (i.e., MPs, MPPs, city councillors, etc.) in constituencies where the company has a presence, to acquaint those officials with the nature of the company’s operations, economic impact, Responsible Care commitment, activities and public policy concerns, and to understand the elected officials’ interests and concerns. Also reviewed were the company’s engagement in CIAC activities aimed at assisting in the development of sound public policy (e.g., Parliamentary Day, policy discussions, lobbying, etc.).

FINDINGS

Overview:
The company actively ensures on-going relationship with elected officials in the Fort Saskatchewan / County of Strathcona and Lacombe / Red Deer area, as well as with other Alberta and Canadian elected officials. Many of the activities are initiated via the various industry group / committees that the company participates in. This includes such activities as Parliamentary Days in Ottawa and the October Senior Government Officials Meeting in Edmonton. Elected officials are also engaged through company sponsored community events.

In addition, the Chief Executive Officer has had the opportunity to meet with the Premier of Alberta and Finance and Enterprise team in support of growth in Alberta.

3k) Transportation Security
The team looked at how the company assesses the risk of deliberate misuse of products or raw materials in transit and provides protection against such risks.

FINDINGS

Overview:
The vast majority of company product is shipped by rail in North America and by marine tanker to overseas customers. In recent years significant efforts have taken place in the area of transportation security, and there is a transportation security plan in place. An assessment has been done against this plan at both sites.

Although the company’s products are considered non hazardous in Canada, several security measures have been put in place, such as sealing of every loaded rail cars of glycol and sealing of every empty car upon return.
3l) Carrier Selection
The team looked at the company’s process for establishing criteria for the selection of road, rail, marine, pipeline and air carriers, and for ongoing assessment of those carriers against those criteria.

FINDINGS

Overview:
The company has a well defined carrier selection and qualification process which includes review and monitoring of environment, health and safety performance prior to and during the execution of carrier contracts.

3m) TransCAER Outreach
TransCAER is the CIAC program for Transportation Community Awareness and Emergency Response. It involves the company’s approach to preventing transportation incidents, its transportation emergency response plan, and also outreach to communities through which chemicals are transported. Company responsibilities are decided by regional TransCAER committees formed from the members and partners in each region. The team looked at how the company has participated in TransCAER outreach in each region where it has facilities, and how effectively the Responsible Care ethic drives the building of relationships with targeted stakeholder groups.

FINDINGS

Overview:
The company is represented in TransCAER community meetings, and is actively involved in all local TransCAER events.

4. CONCLUSION
As a result of the Prentiss and Fort Saskatchewan site visits, documentation reviews, several interviews with company personnel, and meetings with the company’s Community Advisory Panels at both locations, the re-verification team is satisfied that the company’s decision-making and actions are strongly underpinned by the Responsible Care ethic, and that the overall management system is self-healing (i.e., based on a process of continual performance improvement, and identification and timely correction of deficiencies). This was also demonstrated by the clear commitment of company personnel to do the right thing and do it well.

5. COMPANY COMMENTS
Responsible Care is at the core of MEGlobal and how we manage and operate our facilities. The Responsible Care re-verification process driven by CIAC is a unique way we can routinely engage community and external third party assessment of our management systems. This assessment, though one of many, provides a uniquely valuable perspective on our performance, how we have integrated the ethic and principles of Responsible Care throughout our operations, and fosters continued improvement. (Bob Brandt, MEGlobal VP of Manufacturing)

“The re-verification process, from the initial contact with the Lead Verifier to the actual re-verification, went very well. During the re-verification, the verifiers were challenging but not threatening and the questions were relevant to our operations. It was obvious that the members of the re-verification team had well prepared for the re-verification and was well versed in the content of the Advance Information Package. A special effort was made to maximize leveraging between Dow to minimize duplication. The feedback from the Community Advisory Panel members who participated in the special dinners at Fort Saskatchewan and Prentiss was very positive. (Rejeanne Cool, MEGlobal Global EH&S / Quality Leader)
As a new participant in the process this year, I found the whole experience quite rewarding. The recognition of how serious MEGlobal, as a whole, takes the process of re-verification was very satisfying. The questioning process with the community participants was especially gratifying to see how informed they are and how they perceive MEGlobal. (Cheryl Behmlander, MEGlobal Senior Supply Chain Planner)

The verification team did an excellent job to understand our Operating Management Discipline System which resulted in a positive, challenging and relevant experience for us. The open dialogue allowed for recommendations that will be valuable as we continually improve our culture of Responsible Care. (Ben Rush, MEGlobal Six Sigma Master Black Belt)

This year seemed even better than the last audit. The interviewers were some of the same from the previous audit and therefore had more knowledge/experience helping to keep the questions to the utmost of importance. Our customers feel this is critical as they want to only purchase from companies that are safe and responsible in their daily lives. This gives them the comfort they need to know we are taking care of them. (Lisa Woods, MEGlobal Product Marketing Specialist)

The bottom line of the verification is what the community thinks of us as a company. We can talk the talk, but the verification proves we walk the walk. Responsible Care is a continuous improvement process and the re-verification proves we continuously improve on safety and our commitment to the environment. (Dale Sandford, MEGlobal FS1 EOEG EH&S Delivery Technician)

The in-depth involvement we received from the re-verification audit was very effective when comparing the efforts place by Responsible Care® initiatives for insuring we meet and provide the appropriate tangibles for this element. The panel ask questions concerning Responsible Care that are often times overlooked and allowed the group to be open and intuitive in our thoughts for this requirement. The different perspective offered from each panel member touched on areas that we often overlook but in most cases had the appropriate processes in place. The panel also was able to touch on some areas that could use some improvement which seemed to fit within our core responsibilities and inner working with our customers and suppliers. We were also able to allow all sectors of our business to be represented that normally would not be expose to the Responsible Care working process and to gain a knowledgeable perspective and respect of this process with the realization that this is not just a way of existing for folks in the production units but for all MEGlobal personnel as a whole. Their involvement of all sectors of the business allowed for this message to be projected. (Larry Bradford, MEGlobal Product Steward / Quality System Specialist – Americas)

I found the audit team to have a good cross-section of experience and they focussed in on some details that we may not have. As this was our second audit it is noteworthy that we had no non-conformances and some good opportunities for improvement. As we go through more audits it will be more challenging to identify areas for improvement but this is the value that this process brings. The audit questions touch on topics that are audited by other protocols which indicates the RC verification is very much a real world audit. (Rob Jost, MEGlobal Prentiss EH&S Delivery Technician)

I found the recent re-verification audit a great learning experience. The auditors were very well versed and prepared, their questions were directed to specifically our responsible care program and the contents within it. They never made you feel uncomfortable or pressed, they were very professional and knowledgeable, throughout the audit and after the audit with their comments. It was a positive experience for myself. (Ian Rowley, MEGlobal Prentiss EH&S Delivery Technician)

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It was a great opportunity for the MEGlobal team to present the efforts we make in the EH&S area to maintain our commitment to Responsible Care. This was also a valuable opportunity to meet with external verifiers and to understand the expectations from the community. Their recognition of our
product stewardship program will further enhance the awareness of each diligent staff in MEGlobal. (Terence Ong, MEGlobal Product Steward/Quality System Specialist – Europe / Middle East / Asia)

While we do many internal audits, the CCPA Responsible Care verification process provides a different and helpful perspective. The observations and recommendations provided by the Verification Team will no doubt contribute as we seek to continuously improve our practice of Responsible Care (Clarence Stadlwieser – MEGlobal Technology & Improvement Leader)

“From my perspective I thought they asked several probing and thought provoking questions and carried their review out professionally and constructively. It was pleasing to see we had no non conformances and like all good audits and reviews they identified areas that we can build upon to improve our systems”. (Dale Moverley, MEGlobal P2 / P EOB/ES Production Leader)
APPENDIX 1

COMPANY DESCRIPTION

MEGlobal is a world leader in the manufacture and marketing of merchant monoethylene glycol and diethylene glycol, collectively known as ethylene glycol. Established in July 2004, the company is a joint venture between The Dow Chemical Company and Petrochemical Industries Company of Kuwait, and is headquartered in Dubai, United Arab Emirates. The company produces about 1.0 million metric tons per year of ethylene glycol, and markets 3.5 million metric tons of ethylene glycol per year, which includes product manufactured by Dow Chemical. With approximately 200 employees worldwide, the company serves customers around the world, and has production facilities in Fort Saskatchewan and Prentiss, Alberta, Canada.
APPENDIX 2:

TEAM AND CONTACTS

1. The Verification Team

The verification team consisted of the following:

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
<th>Representing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dave Mack</td>
<td>Consultant</td>
<td>Industry (team leader)</td>
</tr>
<tr>
<td>Alec Robertson</td>
<td>Consultant</td>
<td>Industry</td>
</tr>
<tr>
<td>Jeff Perkins</td>
<td>General Public</td>
<td>Public at Large</td>
</tr>
<tr>
<td>Bob Pocock</td>
<td>Area Resident</td>
<td>Prentiss Community</td>
</tr>
<tr>
<td>Jim Nelson</td>
<td>Area Resident</td>
<td>Fort Saskatchewan Community</td>
</tr>
</tbody>
</table>

Team members assigned by CIAC are shown by an asterisk (*).

2. Persons contacted at the company

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abey Idicula</td>
<td>MEGlobal P2 EOEG &amp; P ES/EOB Operations Leader - Prentiss</td>
</tr>
<tr>
<td>Allan Rowley</td>
<td>MEGlobal EH&amp;S Delivery Technician / Training Coordinator – Prentiss</td>
</tr>
<tr>
<td>Andrew Maile</td>
<td>MEGlobal Fort Saskatchewan Operations Leader</td>
</tr>
<tr>
<td>Ben Rush</td>
<td>MEGlobal Six Sigma Master Black Belt</td>
</tr>
<tr>
<td>Bob Brandt</td>
<td>MEGlobal VP Manufacturing</td>
</tr>
<tr>
<td>Brenda Gheran</td>
<td>MEGlobal Public Affairs Specialist (contractor)</td>
</tr>
<tr>
<td>Brian Mullen</td>
<td>Dow Transportation Regulatory Specialist (contractor) - Canada</td>
</tr>
<tr>
<td>Cam Kreil</td>
<td>MEGlobal Senior Improvement Engineer</td>
</tr>
<tr>
<td>Cheryl Behmlander</td>
<td>MEGlobal Senior Supply Chain Planner</td>
</tr>
<tr>
<td>Chris Thompson</td>
<td>Dow Site Logistics Specialist – Fort Saskatchewan</td>
</tr>
<tr>
<td>Clarence Stadlwieser</td>
<td>MEGlobal Technology and Improvement Leader</td>
</tr>
<tr>
<td>Colin Allison</td>
<td>MEGlobal Technical Advisor / Environmental Coordinator -</td>
</tr>
<tr>
<td>Corinne Dueck</td>
<td>MEGlobal A &amp; O Business Leader</td>
</tr>
<tr>
<td>Dale Moverley</td>
<td>MEGlobal Senior Production Leader – Prentiss P2 EOEG / P ES/EOB</td>
</tr>
<tr>
<td>Dale Sandford</td>
<td>MEGlobal EH&amp;S Delivery Technician – Fort Saskatchewan</td>
</tr>
<tr>
<td>Darren Berg</td>
<td>MEGlobal Pretiss P1 EOEG Production Leader</td>
</tr>
<tr>
<td>Dave Duncan</td>
<td>Dow Site Logistic Specialist – Fort Saskatchewan</td>
</tr>
<tr>
<td>David Miller</td>
<td>MEGlobal Maintenance Leader</td>
</tr>
<tr>
<td>Ed Van Delden</td>
<td>Dow Emergency Services and Security Leader – Fort Saskatchewan</td>
</tr>
<tr>
<td>Elaine Wasylenchuk</td>
<td>Dow Regulatory Specialist – Alberta</td>
</tr>
<tr>
<td>Garry Leischner</td>
<td>Dow Site Logistic Technical Advisor</td>
</tr>
<tr>
<td>J.Y. Vanier</td>
<td>Dow Site Logistics Leader – Alberta</td>
</tr>
<tr>
<td>James Brown</td>
<td>Dow Regulatory Specialist – Canada</td>
</tr>
<tr>
<td>Jim Lampe</td>
<td>MEGlobal Supply Chain Manager – Americas</td>
</tr>
<tr>
<td>Larry Bradford</td>
<td>MEGlobal Product Steward / Quality System Specialist - Americas</td>
</tr>
<tr>
<td>Lisa Woods</td>
<td>MEGlobal Product Marketing Specialist – Americas</td>
</tr>
<tr>
<td>Majed Al-Majed</td>
<td>MEGlobal Global Communications Manager</td>
</tr>
<tr>
<td>Mitch Colwell</td>
<td>MEGlobal Process Safety Leader</td>
</tr>
<tr>
<td>Ramesh Ramachandran</td>
<td>MEGlobal President and CEO</td>
</tr>
<tr>
<td>Rejeanne Cool</td>
<td>Global Responsible Care and Quality Leader</td>
</tr>
<tr>
<td>Rob Jost</td>
<td>MEGlobal Pretiss EH&amp;S Delivery Technician</td>
</tr>
<tr>
<td>Rod Boshnick</td>
<td>Dow Responsible Care Leader – Prentiss</td>
</tr>
<tr>
<td>Shawna Bruce</td>
<td>Dow Public Affairs Senior Specialist</td>
</tr>
<tr>
<td>Sylvia Gueffroy</td>
<td>MEGlobal Office Professional</td>
</tr>
<tr>
<td>Terence Ong</td>
<td>MEGlobal Product Steward/Quality System Specialist – Asia/Middle East/Europe</td>
</tr>
<tr>
<td>Cherry Burke</td>
<td>Dow Global Supply Chain EH&amp;S Operations Leader</td>
</tr>
<tr>
<td>Tom Fisher</td>
<td>Dow Emergency Services &amp; Security Leader – Prentiss</td>
</tr>
</tbody>
</table>
3. Process for obtaining information
The process followed the current CIAC protocol for Responsible Care Reverification, and consisted of a series of interviews with management, support staff and hands on employees, document reviews, and site inspections. Visits were made to the company’s facilities in Prentiss and Fort Saskatchewan, Alberta.

Meetings were also held with the company’s Community Advisory Panels at both locations visited, to obtain the perspective of local residents.
FACT-FINDING QUESTIONS RE NEW RESPONSIBLE CARE ETHIC & PRINCIPLES FOR SUSTAINABILITY

“Describe any new things you, at the site and/or corporate level, have considered, are doing or have started to do with respect to these concepts:

a) work for the improvement of people’s lives
When thinking of what work we do to improve people’s lives, we look at our employees and contractors, our customers and the people in our community.

We want satisfied and rewarded employees. Training, professional and personal development are paths to success at MEGlobal, and we believe in recognizing the efforts of employees through our recognition program. Work place and process safety, and the value we place on them, communicate to employees that ultimately, their safety is critical to our collective sustainable operation. Our Operating Discipline Management System (ODMS) integrates into each area of our business. We provide excellent benefits for employees and their families, including an employee assistance program.

For contractors, we set standards for the companies we work with to ensure expectations for safety of people and our operation are very clear. We have a strong procedure focus, demonstrating that we want everyone on our sites to go home in the same or better condition that when they left.

Improving life for our customers is centered on providing a product they can rely on for quality, safety and supply. We provide training and documentation to support our customers, which also enables us to manage our product throughout its lifecycle. Our active participation with industry associations focuses on product advocacy, environmental and socio-economic issues at local, national and international levels.

From a community perspective, improving life means doing our part to ensure a sustainable community. This is accomplished in a number of ways, including operating a safe and successful business. We procure local services and pay taxes which contribute to the economic prosperity of our communities.

b) work for the improvement of the environment
As a world leader in the manufacture, marketing and sales of ethylene glycol (EG), MEGlobal has a firm commitment to the principles of the Chemistry Industry Association of Canada Responsible Care initiative. But a commitment is only part of the equation; our actions are the proof of that commitment.

MEGlobal believes that injuries, occupational illnesses, loss incidents and environmental incidents are preventable, and as ever we are committed to the highest levels of compliance in the communities that we operate. More importantly, we are a Target Zero company with a vision of zero incidents, zero injuries and zero harm to the environment. Our excellent environmental performance has being recognized by the Alberta Government. For the fifth consecutive year, the Alberta Government has named MEGlobal’s Prentiss Operations an EnviroVista Leader in recognition of its continued success in promoting environmental excellence. This award recognizes environmental performance that exceeds the expectations of the province’s legislation and demonstrates responsibility, stewardship and commitment to continuous improvement in this area.

MEGLOBAL CONFIDENTIAL - Do not share without permission
Rejeanne Cool
The second key element to the FOCUS 2012 goals is related to a reduced Environmental Footprint and is broken down over four independent goals. Using 2005 as a baseline year, MEGlobal aims to achieve by 2012:

- 70% reduction in priority chemical emissions
- 80% reduction in chemical emissions
- 40% reduction in CO2 emissions intensity
- 15% reduction in fresh water usage

With respect to reducing our environmental footprint, MEGlobal is proud to report that through continuous improvements efforts and the successful implementation of several projects worth more than 13.1 million dollars, our MEGlobal manufacturing facilities have achieved more than a 70% reduction in priority chemical (ethylene oxide, acetaldehyde and formaldehyde) emissions and more than a 40% reduction in CO2 emissions intensity since 2005.

Recent Projects and Activities include:

- P1 and P2 Glencoe Projects (2005/06 – $6MM) – has dramatically reduced our emission of carbon dioxide to atmosphere, and at the same time has enabled enhanced recovery of oil by the petroleum industry.
- 7/8/9 Evap Vents (2008 – $0.3MM) – has dramatically reduced the continuous emission of trace concentrations of ethylene glycol from one of our licensed emission points.
- P1 CO2 EO Reactor (2006 - $3MM) – has all but eliminated the continuous emission of trace concentrations of ethylene oxide from one of our licensed emission points.
- P1 Reactor Vent Elimination (2009) – has significantly reduced the episodic emission of ethylene/methane that used to occur during a major compressor trip.
- P1 EO PSV / Rupture Disk Upgrades (2008/2009 - $0.6MM) – has allowed us to positively prevent leakage of EO from relief valves, thereby reduced our fugitive EO emissions.
- Fort EO PSV / Rupture Disk Upgrades (in progress for 2011 - $0.4MM) – will allow us to positively prevent leakage of EO from relief valves, thereby reducing our fugitive EO emissions.

\[c)\textit{ take preventative action to protect health and the environment}\]

MEGlobal has a very proactive approach to ensure health and the environment is protected. Our FOCUS 2012 Goals are key to ensuring we continuously improve in environmental performance. Since the formation of MEGlobal, a significant amount of capital dollars have been spent for the protection of the environment (see previous discussions on this area)

With respect to protection of health, MEGlobal has very active industrial hygiene program, ergonomic program and promotes good health for the individuals and their families in a variety of programs from weight management, fitness, stress management, employee assistance, etc.

\[d)\textit{ innovate for safer products}\]

MEGlobal does not produce new products, manufactures and markets two products, ethylene glycol and diethylene glycol, and these are considered to be relatively non hazardous. Due to several instances of misuses of ethylene glycols over the last several years, MEGlobal put an extraordinary effort to ensure its glycols only end up in applications that are supported by MEGlobal. MEGlobal has a list of non-supported application and works closely with customers, distributors and traders to ensure that its products only end up in supported application. MEGlobal has a very well developed and implemented product stewardship program. All new applications are reviewed and approved by the product steward prior to sales to ensure that our products are used only in a responsible care manner.

\[MEGLOBAL\ CONFIDENTIAL - Do not share without permission\]

Rejeanne Cool
e) innovate for safer processes
MEGlobal has long had a mindset of designing and operating our processes in a safe manner. Our Operational Safety program has been second-to-none in the industry. Incorporation of the Layers of Protection Analysis (LOPA) methodologies in recent years has allowed us to analyze the hazards of our processes in greater depth and identify opportunities for further enhancement of our process safety protection system.

Recent Capital Projects:
- LOPA Hardware Upgrades (at all of Fort, ES, P1 and P2 units through 2008-2011 – $4MM) – addition of redundant instrumentation to detect and mitigate undesirable process conditions.
- EO Pumps Recycle Enhancements (2008 – $0.4MM) – allows the EO refining system to automatically transition between operating modes with less operator action required.
- Fort Elimination of 2 EO Storage Tanks (in progress for 2011 - $0.2MM) – large reduction of inventory of EO on our plant sites.

f) Innovate to conserve resources
Reducing energy intensity has been a primary focus for MEGlobal over the past 6 years. Not only does energy consumption impact the economic viability of our operations, it also affects our demand for natural resources such as natural gas and fresh water.

Since the formation of the company in 2004, MEGlobal has implemented an aggressive improvement program to reduce energy usage in the manufacture of our projects. We are proud to say that, since the inception of MEGlobal, we have reduced our overall energy intensity by more than 12%.

One very effective program that has delivered excellent results is the inclusion of a Payfor-performance goal for 2009 and 2010 regarding steam energy intensity, for every employee in the manufacturing organization. This program has promoted a culture of energy awareness throughout the company and has had a significant positive impact, as evidenced in the performance graph on the Energy Web Page.

Recent Projects and Activities:
- P1 Low CO2 (2009 - $27MM)
- P2 Low CO2 (2009 - $6MM)
- C-437 Vent Recovery (2009/2010 - $0.9MM)
- 7/8/9 Vent Recovery (2008 – $0.3MM)
- P1 and P2 SW Cross-Exchanger Cleaning (2008/2009)
- Fort Gas Loop Enhancement (being designed for 2011- $12MM)
- Fort EO Reactor Upgrade (being assessed for 2013 – estimated at $30MM)
- Glencoe Water Recovery Feasibility Study (2009)

g) innovate for products and processes that provide enhanced value
MEGlobal continuously looks for opportunities to enhance value in all areas. Recent projects and activities include:
- P1 Low CO2 Project (2009 - $27MM)
- P1 Process Steam to Stripping Still (2009 – $0.5MM)
- P2 Low CO2 (2009 - $6MM)
- P2 Vent Heat Recovery Feasibility Study (2009)
- Fort Gas Loop Enhancement (being designed for 2011 – projecting $12MM)
- Fort EO Reactor Upgrade (being assessed for 2013 – estimated at $30MM)
h) engage with business partners to ensure stewardship and security of products and/or services
In our continuing efforts to connect with our customers and distributors we have implemented a program to allow for a channel of communications from our MEGlobal Product Stewardship process to these business partners. We realize that providing our customers and distributors with the appropriate literature and pertinent information on our products is not always enough. We believed that this effort needed to be enhanced by creating an open dialog with our customers and distributors to better understand how they operate and to ensure that our products are being managed in a responsible way. We at MEGlobal have implemented a Distributor Assessment program which is in line with the Chemistry Industry Association of Canada (CIAC). This program provides product specific data on MEGlobal’s produced material and is leveraged to our distributors for their understanding on our stance on items such as non-supported uses and other safe handling concerns we have for our products. This program involves receiving feedback from each distributor on questions that allow MEGlobal to feel assured that our products are being managed in an appropriate manner and in line with the guidelines of CIAC. We’ve introduced this program through our Commercial function and asked for the communication to be managed at this level with cooperation from our Product Stewardship function. The outcome of this effort should open communications with our distributors and enhance the relationship that exists between them and our industry. This is a total win/win for all parties involved.

With respect to security, MEGlobal has implemented several steps to ensure our products reach their destinations and that the container is not tampered with. For example, all rail cars are sealed upon loading and the empty tank cars are resealed upon return.

i) engage with business partners to ensure stewardship and security of raw materials
With respect to stewardship and security of raw materials, MEGlobal continues to look for opportunities to improve in these area.

Stewardship
- Replaced chlorine with sodium hypochlorite
- Replaced anhydrous ammonia with aqueous ammonia

Security
- Site security
  - Sites are fenced and patrolled, access is controlled, cameras are used to monitor remote gates and terminals
  - Asset security measures defined by MEGlobal L3B Security, which has links to site security policies
- Materials and services are purchased only from Approved Suppliers through long term contracts. A stringent process is followed to become an Approved Supplier. MEGlobal purchasing procedures ensure purchased raw materials are secure and meet requirements.
  - L3B Purchasing
  - Prentiss MEGlobal Purchasing L3D
  - FS1 EO/EG Purchasing
- All raw materials are positively identified
Raw Materials

- Tank trucks
  - LPP 8.1 requires that hazardous materials are analyzed for positive identification prior to offloading.
    - Process Aid Manual
    - Sodium hypochlorite
    - NBS
    - EDC
    - Ammonia
    - Caustic
    - Acid

- Drums and tote tanks
  - Administrative controls are used for material verification, such as comparison of seals, container numbers with orders, COA, etc., are used for small containers due to the lower process safety risk associated with smaller volumes.
    - Process Aid Manual
    - Water treatment chemicals
    - EDC drums
    - SAG

- Chemical storage
  - Stored in chemical warehouse/secure areas

- Business partners supply
  - MSDS
  - Proper labels – WHMIS, TDG
  - Pipelines
    - Key raw materials come in by underground pipeline (ethylene, oxygen, river water, natural gas and nitrogen).
    - Off-site pipelines fall under the Alberta Pipeline Regulation 91-2005 of the Pipeline Act as monitored by the Energy Resources Conservation Board.
    - The river water pump house is fenced, locked, and patrolled.
    - MSDS’ supplied.
    - Quality is defined by contract. Suppliers use online analyzers to ensure quality:
      - Ethylene (P1) (P2)
      - Oxygen (P1) (P2)
    - Pipeline operators monitor pipeline pressures and flow on a continuous basis
    - Pipeline operators have preventative maintenance programs to ensure pipeline integrity.
    - Frequent interface with partners.

- Catalyst
  - Purchased from sole supplier, Dow Chemical
  - New and spent catalyst tracked and controlled – silver recovery
  - Storage in secured area
j) **understand and meet expectations for social responsibility**

Since MEGlobal's start-up in 2004, we wanted to define ourselves as a strong, separate company committed to enhancing quality of life locally in the communities where we operate, and globally with our core business values. Our sustainability philosophy and programs were developed using economic, environmental and social performance metrics, giving focus to our efforts while still seeing the big picture.

To MEGlobal, understanding expectations for social responsibility is multi-faceted and integrated into our sustainability philosophy. "We strive for a balance between profitability, safe operations, healthy communities and social action. We are committed to using resources more efficiently, providing value to our key stakeholders, and delivering solutions to meet customer needs. MEGlobal's sustainability philosophy is comprised of four key tenets:

- Our Business
- Our People or Our Employees
- Our Operations
- Our Citizenship

At MEGlobal, we're committed to minimizing our environmental impact and protecting resources to preserve and safeguard them for future generations. Understanding the needs of our communities is a dynamic process and we are fortunate to have an established Community Advisory Panel that helps us understand those needs. We also have an engaged workforce and an open corporate culture which invites input from employees on how the company can enhance community quality of life. The overall goals of MEGlobal's strategic community investment program are to create opportunities to build relationships with stakeholders; be responsive community needs; be meaningful to employees and ensure our investments align with business goals and corporate sustainability philosophy. We wish to be a valued member of our local business community and support the work of various organizations that strengthen communities, focus on environmental improvement, education and safety. Initiatives that have received support from MEGlobal include:

- Ellis Bird Farm
- MEGlobal Athletic Park
- United Way Central Region
- United Way Capital Region
- Alberta Seniors Games
- Lacombe Days
- Blackfalds Days
- Alberta 4H
- Lacombe Composite High School
- Elk Island elementary schools safety
- Red Deer Public Schools
- Lacombe Chamber of Commerce
- Fort Saskatchewan Chamber of Commerce
- Midland MEGlobal - Local Shelter
- Horgen MEGlobal - Rainbows4children Foundation
k) promote awareness of Responsible Care
MEGlobal Canada utilizes an integrated management system called Operating Discipline Management System (ODMS). ODMS is the company’s comprehensive corporate management system that integrates the management systems for Manufacturing, Quality, Environmental, and Health and Safety. ODMS integrates common management processes within MEGlobal Canada to drive overall performance improvement. ODMS provides access to policies, requirements, processes, best practices and procedures. ODMS is based on the plan-do-check-act cycle. Although Section 6.0 of ODMS is titled Responsible Care (EH&S), it is the overall ODMS that ensures the Responsible Care ethic is sustained throughout in MEGlobal Canada.

MEGlobal lives the Responsible Care ethic through its Managing Implementation plan and ODMS management system. ODMS drives a plan-do-check-act cycle of continuous improvement. Achievement of the FOCUS 2012 Goals will ensure that the company remains a leader in the Responsible Care ethic.

Numerous communication tools are used to ensure that the ethic of Responsible Care is known by employees. This includes: Company Managing Implementation Plan, Newsline stories, web sites, Communication Meeting presentations, conference room posters, public communication via Community Advisory Panels, etc. In Canada, the Executive Contact is directly involved in this employee communication. In addition, the MEGlobal CEO and President personally rolled out the Responsible Care Verification Banner at an all employee company function in August 2007, just a couple of months after MEGlobal’s initial verification.

Since 2007, two surveys of employee knowledge of Responsible Care have been completed with all employees globally, with the latest one completed in December 2009 / January 2010.

In addition to internal communications on Responsible Care, MEGlobal Leaders have had the opportunities to “fly the Responsible Care banner”.

For example, in 2008, Henry Roth, MEGlobal CEO and President was keynote speaker at a 2008 workshop on Responsible Care organized by the Gulf Petrochemicals and Chemicals Association (GPCA). His presentation was entitled: “Responsible Care® Pays! MEGlobal's commitment to the Responsible Care approach”.

Our current CEO, Ramesh Ramachandran will be speaking at the Petrochemicals Technology Conference held in Qatar in October. His presentation is entitled: “Sustainability and the Petrochemical Industry: Realities-Challenges-Myth