

**Team Comments, Findings and Conclusions
Pertaining To The BASF Canada Reverification
May 10 to 14, 2003**

Executive Summary & Team Conclusions

Company Description At The Time Of Reverification

BASF is a multinational company with head offices in Germany. In North America the overall business is run as a NAFTA entity. However, the Canadian President manages the Canadian part of the company through the head office located in Toronto, Ontario. This Canadian President is the Responsible Care Signing Executive. Included under the CCPA's Responsible Care Ethic are all Canadian facilities and operations.

The Canadian President is responsible for the administrative and functional areas of the company in Canada, setting the strategy for the Canadian business. He is also part of the company's NAFTA management structure for North America, where continent-wide business strategies and decisions are planned.

As the company operates within a global company structure, and with the Canadian component being part of its NAFTA organization, the Canadian company utilizes and provides resources to both sides of the border. For the purposes of this reverification, we are focused on the Canadian organization directly under the President's direct control and responsibility, (the President is the Signing Executive committing the company to the Responsible Care Ethic). This consists of the Toronto head office, and all the Canadian manufacturing, blending, warehousing, and distribution and resale facilities.

The company has undergone many changes, acquisition and divestitures since the last reverification in December 1999. Among these was the sale of its major facility in Arnprior, Ontario. The company currently has six manufacturing sites situated in Abbotsford B.C., Blackie Alta., Cornwall, Georgetown, Toronto, and Windsor Ont. It blends animal nutrition products in the Abbotsford and Georgetown facilities, blends and distributes polyurethane chemicals in Blackie, manufactures and distributes plasticizers in Cornwall, manufactures automotive OEM (Original Equipment Manufacturer) paint coatings in Windsor, and operates a polyurethane blending operation and a general distribution centre in Toronto. The company is currently consolidating distribution into a small number of North American major distribution centres, of which one is the Toronto distribution center.

The company's business is divided into the following four basic business segments: Chemicals, Plastics, Performance Products and Agricultural Products and Nutrition. Chemicals include: importation and resale of basic petrochemicals, inorganics, intermediates and specialties and manufacturing of plasticizers. The plastics segment includes importation and resale of styrenics, engineering plastics and polyurethanes and custom blending of polyurethane systems. Performance Products are tailor-made products and application processes that includes; chemicals, coatings and functional polymers. Coatings, includes a combination of manufacturing and importation of automotive OEM and refinish and industrial coatings. Also included in coatings is Automotive Refinish Technologies – a series of small trade sales stores supplying of automotive refinish supplies to auto-body shops. Some of the other performance products include importation and resale of pigments, paper chemicals, soap and detergent raw materials and chemicals for adhesives.

The Agricultural Products and Nutrition segment includes supplying agricultural products (crop protection) and fine chemicals to the farming, food processing, pharmaceuticals, animal and human nutrition and personal care industries.

Approximately 75% of the company's business in Canada involves resale of imported products, the remaining 25% involves the manufacturing of products, either sold in Canada or exported within the NAFTA area. The company uses a number of warehouses, including manufacturing site warehouses, BASF company-owned or leased warehousing premises, and outside warehouses operated by other parties.

Facilities visited during this reverification were Toronto, Cornwall and Windsor, with teleconference calls to facilities in Abbotsford, Blackie, and Georgetown.

The company handles materials that can potentially be used either for weapons or illicit drug manufacturing, and hence has an effective security system to ensure these materials are stored, sold and shipped appropriately.

The company had three government directives since the last reverification. These were the result of incidents at Toronto, Georgetown, and Cornwall. All have now been closed.

The company does not use any short haul railroads.

The transportation Route Risk assessment process, which they consider as cost effective, is detailed and includes a review of ALL their carriers' security plans.

All sites have completed their SVAs (security vulnerability self-assessments) and are classified as Level IV sites with the exception of Windsor and Toronto, which are Level III sites.

The company has appropriate Buffer Zones and aggressively challenges potential changes to the status quo. Its Displacement Policies should be more specific regarding residential neighbours.

They have completed their Process Safety Assessment at every location, however not all have reached the "Essential" level. The company has yet not reviewed the need to advance further on a facility-by-facility basis.

Process risk management studies (HAZOPS) focused on hazard identification have not been fully completed on all chemical processes at all sites.

All facilities have conducted Worse Imaginable and Probable Case Scenarios.

There is asbestos, a Designated Substance, (Ontario definition) on various sites. Asbestos is present in building panels and in gasket materials. A formal control program for asbestos is in place at all sites to ensure maintenance work considers the risks before proceeding on any required work, alterations or repairs.

Team Conclusion

The company has effective management systems in place to meet the Responsible Care codes and its other expectations. We find it has demonstrated itself very capable of identifying deficiencies through its management systems, processes, and performance indicators, and demonstrates continuous improvement consistent with the expectations of the company's stakeholders, including neighbours, employees, peers, governments, and private owners. This reverification team, however, did find concern over the company's loop closing and effectiveness review processes in a number of Responsible Care related areas.

As a result of our expressed concern on these issues with the company's Responsible Care Reverification team, the company agreed to alter the internal reporting structure of its Responsible Care organization to provide a closer overview by the President and a commitment to implement the annual Manufacturing Code review process throughout the company. It also plans to model the other code reviews along similar lines to that used in the excellent process devised for the Manufacturing Code. This process identifies gaps from what is required, ensures prioritization and follows up until completion. There is also a review of effectiveness. The team considers these actions will greatly improve its commitment and follow-through to closure and its effectiveness review on numerous issues. With the implementation of the above, the team is confident that the company demonstrates the necessary self-healing required of this Responsible Care reverification report.

This reverification team found that the Responsible Care ethic is well understood and to a very large degree guides the daily actions and decisions of the company's management team and its employees. The Executive Contact is deeply involved in the commitment and the process of Responsible Care and is leading a sound approach to making it even more widespread among the employees and the public. There are still, as always, opportunities for improvement. We detected eagerness on the part of the entire team for our comments and ideas for the continuous improvement of their Responsible Care Management system.

It is the team's conclusion, after reviewing the company's Information Package, and having interviewed their management team, their employees, members of their local Community Panel, and other local neighbours and officials that the company's actions and decision-making processes indeed **continue to demonstrate the Responsible Care ethic**.

It is therefore this team's conclusion that the company is adequately self-healing and forward looking in carrying out its responsibilities, that there is no need for the team to follow up on the company's progress in completing the findings requiring action and in assessing and taking action, where appropriate, on the team's additional comments regarding opportunities for improvement.

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

Summary Of Findings, Opportunities, Significant Improvements and Best Practices.

The following is a summary of the findings requiring action, opportunities for improvement, significant improvements, Extra Miles and best Practices determined during our 2004 reverification visit. The findings will need follow-up with the company's Leadership Group, the Windsor and Cornwall Community Advisory Panels, Toronto West CAER group and the neighbours adjacent to their other facilities. Updates of progress will need to be included in the annual CEO recommitment to CCPA as well as at the time of the next re-verification visit in 3 years.

Findings Requiring Action:

2c

A finding requiring action is that the company needs to include how the displacement of residents will be addressed, including people displaced due to a transportation incident.

A finding requiring action is that it is not clear whether all company facilities and their toller facilities are covered by the 151 elements of the CCPA Responsible Care codes.

A finding requiring action is that the company has not included outside contract labs it uses in the conformance review to the requirements of the R&D codes.

A finding requiring action is that the company has not considered one of its outside packaging facilities as a tolling operation, and which consequently is therefore considered covered under the various applicable codes.

A finding requiring action is that the company reviews the facility quality control laboratory activities in Cornwall to ensure conformance to the requirements of the R&D codes.

A finding requiring action is that the company needs to determine how the 151 code elements apply to their Automotive Refinish Technologies retail outlets handling automotive coating supplies to refinishing shops.

A finding requiring action is that the company needs to define Responsible Care responsibility for the key coordinators in their job descriptions or objectives so that this is clearly part of the job and documented for current and newly appointed personnel to these responsibilities.

A finding requiring action is that the company needs to implement a tracking mechanism for implementation and review of Responsible Care code elements at each facility similar to the one already devised for the Manufacturing Code and reviewed during this reverification.

3a

A finding requiring action is that the Toronto facility needs to review the security lock system on the personnel doors to ensure that the failure of one of the doors in the system was simply an error on that door security installation rather than a systemic problem with a number of doors. Furthermore, this shortcoming of the door lock system needs to be communicated to all who have master keys so that they are aware of this problem. The manager of the facility was not sure of how he would be notified of such a situation, nor was there an incident report issued. The concern here is the structure of and the adherence to the management system rather than the chance finding of a failure of the security system by the team.

3b

A finding requiring action is that three facilities have yet to reach the “Essential” level in their PSM.

A finding requiring action is that the company needs to define their plan to advance beyond the “Essential” level for individual facilities.

A finding requiring action is that the temporary Toronto facility Joint H&S committee worker representative interviewed has not undergone the required training and certification. The situation results from another trained member who is away ill. However, with the passage of several months the company needs to resolve this issue.

A finding requiring action is that the Windsor site needs to complete HAZOPS for all their processes.

3e

A finding requiring action is that the Abbotsford facility has not yet conducted an emergency exercise with its community first responders.

A finding requiring action is that the Cornwall facility needs to assess its internal response capabilities to a chlorine emergency at one of their neighbouring industrial facilities since they are within those companies Worst Case Scenario perimeter.

A finding requiring action is that the Windsor facility needs to confirm whether there are outside risks to the facility where such emergencies would require “shelter in place” for their employees. If so, a management system to cover this situation is required. The local fire department should be able to assist in confirming the situation.

3k

A finding requiring action is that each facility needs to conduct an effectiveness review of their community reach outreach program to ensure that affected residential and commercial neighbours understand what is required of them in event of a facility emergency.

A finding requiring action is that all facilities need to confirm whether the local hospitals are capable of handling the number of residents, employees, and First Responders likely to require treatment from their Worst Case Scenarios. This is especially true of facilities with chlorine on the premises or on the premises of other nearby facilities where a release could impact on the company’s own facilities.

A finding requiring action, where “Shelter In Place” is expected of community residents, is that the facility confirms annually that these residents have received, understand the meaning, and are aware of how and when to initiate this process. Confirmation of how the community plans to announce the emergency needs to be verified as effective for the extent and immediacy of the possible emergency.

A finding requiring action is that the Windsor facility needs to decide whether “Shelter in Place” is an appropriate course of action for its residential and industrial neighbours affected by the facility’s Worse Case Scenario.

A finding requiring action is that community brochures need to be rewritten to include “Shelter in Place” instructions for facilities where this is the appropriate action during a facility emergency.

A finding requiring action at the Cornwall facility is that the facility needs to establish an effective emergency plan and a safe location for “Shelter in Place” for facility employees in event of a chlorine emergency from the several nearby facilities with chlorine storage and operations in the community.

A finding requiring action at the Cornwall facility is that the facility needs to confirm whether the Cornwall EMO plans are adequate for the protection or evacuation of its facility and its employees (especially in event of a chlorine emergency).

A finding requiring action is that the company needs to complete the site Worse Case Scenarios emission plume calculations for the Toronto and Cornwall facilities.

Opportunities for Improvement:

The following comments have been summarized for brevity. The detailed comments will be found in the appropriate section of the report

The reverification team identified a number of opportunities for improvement in various management systems the company has instituted. These range from simple ideas to more complex opportunities and range too widely in detail to summarize here. The details are covered in the report following this summary. While these are suggestions for improvement, the company is not required to implement them as suggested, however the company is required to respond to each suggestion and indicate how each will be addressed or why it will not take action on the suggestion.

Significant Improvements

We found that the company had made significant improvement in their governance, management systems and culture. Continuous improvement is evident as a driving force behind company activities as shown below:

3i

The company now sets annual environmental targets that are effective in driving emissions reduction projects at manufacturing sites.

3k

The company's annual Responsible Care report that is published on the Internet and is communicated with all employees and key community stakeholders is a significant improvement in outreach.

Extra miles

Several extra mile efforts were noted. These include:

2c

The CEO continues to demonstrate his commitment to responsible Care through unflinching attendance and chairmanship of its leadership group.

3b

The housekeeping was very good at all facilities

3c

The Windsor site's WISE (Windsor Initiative for Saving Energy) Program resulted in annual greenhouse gas reductions of excess of 20% from programs completed in 2000 and 2001.

3f

The company has been active in the Ontario TransCAER committee and has shared their "best practice" Transportation Risk Assessment and Management system with the committee.

The company's TransCAER code management system is one of the best the team has seen.

3g

The company in conjunction with the Ontario MOE and other stakeholders helped develop and deliver training programs for body shop operators on the proper handling, use and emission control of materials in such establishments. In addition, the company has been very active on the Ontario MOE's stakeholder committee to better understand isocyanate emissions from automotive spray coating operations. The Toronto facility's refinish training centre will be used in June 2004 for experimental testing as part of this endeavour.

3i

The company continues to work at reducing user exposure to pesticides through their Crop Life Canada membership, which includes such initiatives as a fully member funded used container collection and recycling program.

The company's development of the product "Natuphos", an enzyme that reduces the phosphorus content in pig manure is another example of helping customer's reduce their impact on the environment.

3j

The company's sponsorship in terms of money, technology and "green" building materials for the Earth Rangers Centre at the Kortright Centre in Woodbridge, ON helped the centre with its goal to become a "green" technology showcase.

3k

The company became concerned over a proposed daycare centre planned to be located in a building used as one of their 3rd party warehouses. They expressed sufficient concerns and reasons opposing the move, that the project was abandoned.

Best Practices

A number of best practices were also noted. These include:

2c

The company's SAP computer system only allows shipments to Crop Protection customers (distributors) that have valid Crop Life Canada warehouse certification.

The company monitors and graphs numerous Key Performance Indicators, items that demonstrate to the company its progress on issues it deems as important for continuous improvement. These graphs are posted on the company's intranet, and are reviewed annually with all employees.

The company makes use of the "Goal Is Zero" philosophy as part of the company culture in many or its key performance areas (e.g., safety of employees).

The company is committed to sustainable growth through innovation and uses its Eco-efficiency Analysis Tool to assess viable options. The small batch coating process at the Windsor facility, which reduces waste and emissions from cleaning because the coating is mixed in the shipping container is but one example of moving towards sustainability.

The dialogue process that the company has begun with the ENGOs (Pollution Probe, Canadian Environmental Law Association and Toronto Environmental Alliance) is a good method for the company to obtain feedback on the effectiveness of some of its Responsible Care related activities. The CCPA has even expressed interest in participating.

3a

Following the summer 2003 widespread power failure the company assessed shortcomings in their security setup caused by the power failure at affected facilities and shared the findings with their other facilities in order to resolve such deficiencies.

The company also undertook a detailed review of facility security after 9/11 and implemented substantial improvements in its facility security management systems.

3b

The company's AIM, (Accident Incident Module) electronic incident reporting system investigates root cause, assigns corrective action and flags past due date reports. Signoff closes the loop. The facility JH&S committee confirms the change was effective through discussion with the affected employees.

The company's focus on reporting "near misses" and the study that the company completed on near misses in 2003 resulted in a number of areas to focus effort in order to improve safety performance.

Every 3rd party warehouse used by the company is externally audited by QRC. In addition, a third party auditor through the Crop Life Association audits all warehouses storing and tollers handling Agricultural products.

The company's Company Vehicle Driver program provides ongoing training to the approximately one third of the company's employees that drive company cars. The program also tracks car accident statistics and set targets by business group.

3e

The Windsor, Georgetown and Toronto facilities have financed and provided 40 hour HAZMAT training in the USA for local city firefighters/hazmat responders. The training takes place along with BASF Canada and BASF Corporation HAZMAT responders. BASF Canada also provides this training for CANUTEC and Ontario MOE Spills Action Centre responders.

3f

The company conducts an annual "Core Carrier Forum" for their carriers to discuss issues, share best practices. It issues a Best Carrier Award, and intends to include Pollution Probe in the next meeting to promote ideas related to better fuel economy, trip recorders, better RPM control, etc.

The company sells materials of potential application for weapon or drug manufacturing. It had established the proper security safeguards to ensure the products are sold and transported appropriately.

The company has reviewed ALL their carriers Security Plans.

The company is expected to be the first Canadian chemical company to obtain the USA Cross Border Movement CSA (Custom Self-Assessment) approval.

The company has an excellent Transportation Route Risk Assessment and Management Process. The company performs a route risk assessment for each critical product delivery route for every critical carrier. This establishes a specifically defined transportation lane for these products to and from shipping points.

The company's transportation emergency response program is effective in getting carriers to report all incidents to a BASF hotline. Trained responders then manage the incidents to ensure proper clean up. The response process is also effective in root cause identification and the development of corrective actions, which are shared at the annual core carrier forum.

3g

The company has introduced an Eco-efficiency Analysis Tool, a strategic life cycle tool, to compare the relative environmental and economic impact of alternative products, production processes and technologies. The purpose is to enable a strategic response on the company's part to the sustainability issues that it and its customers currently face or will be facing in the future. The company is working to add societal impacts to the tool.

The company's Product Risk Ranking Guide is the basis for the system adopted by the CCPA. It ranks customer sites into low, medium or high-risk levels to BASF. All high level sites require a BASF company person to conduct a site assessment prior to doing new business or to continue doing business with that customer. There are product group-specific protocols used to evaluate customers handling isocyanates, coatings or agricultural chemicals. Lower level customers are required to conduct a self-assessment.

All external contact personnel go through Product Stewardship training as part of their customer contact training.

3j

The company maintains a scrapbook of social responsibility activities in the lobby.

3k

Site Managers' activity objectives include requirement to communicate with MPs, MPPs and City Councillors.

3m

BASF has continued to work with the Vinyl Council of Canada in assisting VCC members, to implement their Environmental Management Plans. Networking, supporting and influencing non-CCPA member companies is an important part of the Responsible Care ethic.

The company's office ergonomics program is used to assess and promote the use of ergonomically efficient office workstations.

Signed: 
Roland Blondin
Team Leader

Date: August 30, 2004

For more information on this or a previous re-verification 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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[BASF Canada May 10 to 14, 2003 Reverification Report](#)

1. Introduction and Overview

1a. The Company

This section briefly describes the expectations of Responsible Care, the Responsible Care-in-Place and Re-verification processes and refers to Appendix 1 of the report that contains a brief summary of the company's operations and structure. This section is intended to provide context for the reader who may have no previous understanding of the company or the re-verification process.

This report, by the verification team, pertains to those operations of [BASF Canada](#), which are covered by the company's commitment to the Responsible Care initiative of the Canadian Chemical Producers' Association.

BASF is a multinational company with head offices in Germany. In North America the overall business is run as a NAFTA entity. However, the Canadian President manages the Canadian part of the company through the head office located in Toronto, Ontario. This Canadian President is the Responsible Care Signing Executive. Included under the CCPA's Responsible Care Ethic are all Canadian facilities and operations.

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Facilities visited during this re-verification were Toronto, Cornwall and Windsor, with teleconference calls to facilities in Abbotsford, Blackie, and Georgetown.

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There is asbestos, a Designated Substance, (Ontario definition) on various sites. Asbestos is present in building panels and in gasket materials. A formal control program for asbestos is in place at all sites to ensure maintenance work considers the risks before proceeding on any required work, alterations or repairs.

1b) Responsible Care

Responsible Care is an initiative of the Canadian Chemical Producers' Association (CCPA) 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 that 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 CCPA web site www.ccpa.ca (click on the "Who we are" tab for Responsible Care).

1c) Expectations of CCPA members and partners

Each CCPA 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 CCPA, 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 CCPA 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 *ongoing 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 CCPA’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 CCPA members.

The report is given to the company and CCPA, 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 CCPA in writing when these have been met to their satisfaction.

Responsible Care In-Place Verification of BASF Canada

Company name at time: BASF Canada

Date of “In Place” verification (visit): May 29-31, 1995

Locations visited: Toronto, Brantford

Team follow-up needed: No

Date of final sign-off: July 1995

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’s web site www.basf-canada.ca. The contact’s name is shown on **Page 10** of this verification report.

1d ii) Reverification

Approximately every three years after team acceptance of Responsible Care-in-Place, the CCPA 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.

Previous Responsible Care Re-verification of BASF Canada

Company name at time: BASF Canada

Date of verification visit: December 1-22, 1999

Locations visited: Toronto, Arnprior, Windsor, and Cornwall, Ontario

Team follow-up needed: No

Date of final sign-off: July 2 2001

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 CCPA 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 highlighted topics include community dialogue, process safety management, site emergency preparedness and response, security regarding malicious threats that could impact public safety or well-being, health effects of products and plant emissions, product stewardship and "TransCAER" outreach. Also examined are emissions of greenhouse gases, and how companies with emissions of volatile organic compounds are meeting the intent of a CCPA agreement on this topic with the federal and provincial governments and environmental groups. Although CCPA has no defined performance expectations for broader social responsibility, the team also looks at how the company sees and fulfills its role in this area. The team may also comment on other specific topics where the company has requested feedback.

The report below presents the findings of the team from this re-verification of [BASF Canada](#). 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 CCPA 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, **findings requiring action are shown in bold face**. *Opportunities for improvement (recommended but not considered mandatory) are shown in italics*, while significant improvements, “extra miles” and best practices are shown underlined.

[2. General Findings of the Team](#)

This section contains the following sub-sections: statements on the company’s Ethic, and on Employee Awareness. It comments on the company’s Overall Responsible Care Management System, the company’s follow-up on Previous Verification Report Findings, Recommendations, etc., on the company’s Response to Incidents and Concerns since the last Verification, and on the company’s Performance Measurement Systems.

[2a\) Statement on the Ethic](#)

Here the team must enter their conclusion about the **company’s understanding and actions regarding the ETHIC** under one of the following four statements

“The Responsible Care ethic is well understood and guides the actions and decisions of most people, and the Executive Contact has the following sound approach to making it even more widespread ...”

or

“There is an opportunity for improvement in establishing the ethic throughout the company, as evidenced by the following ...”

or

“Significant improvement must be made in the following aspect of the Responsible Care ethic, and the company shall report its plans and progress for this improvement regularly to the Leadership Group and CAP(s), with a status report in the CEO’s next annual re-commitment statement to CCPA, with the expectation that completion of this corrective action will be achieved by this first anniversary re-commitment.

or

“Significant improvement must be made before it can be concluded that the Responsible Care ethic is once again in place and underpinning the company’s decision-making, as evidenced by the following [see Attachment 8]. The team will need to follow up within one year to assure itself this has taken place before the re-verification is completed.”

The Team’s Conclusion

The company is well aware of the old saying that “What gets Measures Gets Improved.” Their expressed vision of a number of their ultimate goals being Zero, is a commitment to the belief that all incidents of the nature being monitored are preventable, and is a commitment to continuous improvement. However, without a long range plan with annual targets to be achieved for the annual steps along the way to get there, the company cannot devise an effective time focused plan for an acceptable time-related progress path to achieve this vision. Is the time frame five months, five years or five centuries? What is cost effective and in line with the improvements necessary to stay ahead of its competition? What is the cost of greater than zero incidents to the company? What is the cost involved in getting to where the company plans to be on a year-to-year basis?

While the company spends much effort on monitoring and graphing many key areas, how are these efforts then used to examine the results against an annual set of achievement goals? If the activities and outcomes do not match the desired results, it is time for the management process to change either the targets or objectives, or to change the activities it deems necessary to reach their corporate goals. It is unreasonable to keep doing the same thing in the same way, yet expect somehow that the outcome will suddenly change.

Without a long term set of goals and targets and a shorter term set of annual goals and activities to get there, the company may be deluding itself in the value of the effort expended without an accompanying plan to alter whatever it is doing to improve things.

Let us make no mistake; self-healing is as much about concerns for health, safety, the environment and communicating with the public as it is about competitiveness. This team struggled greatly with the company’s ability to be self-healing. A company that does not have an effective management system to self-heal cannot be expected to remain in a leadership position in the long run. While there was a very definite commitment to Responsible Care on the part of the President and specific other members of the company’s management team, this re-verification team’s concern over loop-closing and effectiveness review in a number of Responsible Care related areas continue to be an issue.

Specific concerns are highlighted as examples as follows:

- The company was unable to convince the team it had an effective process for reviewing the continued annual commitment of all the 151 code elements at the facility level.
- The company was unable to demonstrate to the team that it had an effective system how the 151 elements were integrated into the company’s own overall management system.
- The company has not included outside laboratories in its R&D code review.
- The company has not included the Cornwall QC lab in its R&D code review. The company has not included its Agri Products toll processor in its Manufacturing Code review.

- The company has demonstrated a gap in the reverification opportunity review between decision making and actions leading to closure of agreed upon issues.
- The company's root cause investigations too often fail to go beyond "Mind Not On Job" as the cause of incidents.
- There is a deficiency in Responsible Care attitude on the part of a number of employees in the Cornwall facility.
- There is need for greater but simpler explanation of hazards and emergency action to residential neighbours.
- While there are excellent management systems in place, there is a gap between the management intent and the execution in some parts of the company.
- Some codes are well monitored while others are less so.
- The team was present when a security door lock deficiency was discovered. The manager of the facility was not sure of how he would be notified of such a situation, nor was there an incident report issued. The concern here is the structure of and the adherence to the management system rather than the chance finding of a failure of the security system by the team

As a result of our expressed concern on this issue with the company's Responsible Care Reverification team, the company agreed to alter the internal reporting structure of its Responsible Care organization to provide a closer overview by the President and a commitment to implement the annual Manufacturing Code review process throughout the company. It also agreed to model the other code reviews along similar lines to that used in the excellent process devised for the Manufacturing Code. The team considers these actions will greatly improve the commitment and follow-through to closure and its effectiveness review on numerous issues.

This Verification Team concludes that the Responsible Care ethic is well understood and guides the actions and decisions of most people. With the implementation of the above, the team is confident that the company demonstrates the necessary self-healing required of this Responsible Care Reverification Report.

2b) Employee Awareness

General

There is a definite culture and understanding of Responsible Care by most individuals and sites we visited. This is due to a large extent to an active effort of "spreading the word," by senior management and through the new employee orientation process.

Findings

None

Opportunities

An opportunity for improvement exists in that the previous reverification team commented that there was not much facility Responsible Care visibility at the Cornwall site. We still did not see significant visibility in terms of flags, banners, posters, etc where the words or symbol would clearly impact on the employees working there.

2c) Overall Responsible Care Management System

This is a summary of the team's conclusions about the CEO's overall management system that ensures conformance with Responsible Care, based on their review of the information package and subsequent interviews and visits. It should refer to "significant improvements", "extra miles", "best practices", "opportunities for improvement", "findings requiring action" in the CEO's PLAN-DO-CHECK-ACT management loop for ensuring ongoing conformance with all Responsible Care expectations (see section 3 of the information package).

A "finding requiring action" in this overall management system may be one of the reasons the team does not feel the company is "self-healing" [see Attachment 8].

General

The company is clearly focused on their vision of where they want to be as a distinctive organization. Leadership, sustainability and innovation are clear goals aimed at societal, economic and environmental issues, where Responsible Care is a significant component. Every supervisor and manager is expected to set objectives towards these goals for their organization.

Findings

A finding requiring action is that the company needs to include how the displacement of residents will be addressed, including people displaced due to a transportation incident.

A finding requiring action is that it is not clear whether all company facilities and their toller facilities are covered by the 151 elements of the CCPA Responsible Care codes.

A finding requiring action is that the company has not included outside contract labs it uses in the conformance review to the requirements of the R&D codes.

A finding requiring action is that the company has not considered one of its outside packaging facilities as a tolling operation, and which consequently is therefore considered covered under the various applicable codes.

A finding requiring action is that the company reviews the facility quality control laboratory activities in Cornwall to ensure conformance to the requirements of the R&D codes.

A finding requiring action is that the company needs to determine how the 151 code elements apply to their Automotive Refinish Technologies retail outlets handling automotive coating supplies to refinishing shops.

A finding requiring action is that the company needs to define Responsible Care responsibility for the key coordinators in their job descriptions or objectives so that this is clearly part of the job and documented for current and newly appointed personnel to these responsibilities.

A finding requiring action is that the company needs to implement a tracking mechanism for implementation and review of Responsible Care code elements at each facility similar to the one already devised for the Manufacturing Code and reviewed during this reverification.

Opportunities

An opportunity for improvement exists for the company to implement a clear process defining where each the 151 Responsible Care elements are covered by their management system and how these are reviewed annually at the site level for all facilities.

An opportunity for improvement exists for the company to define a review schedule for waste site visits and for confirmation that waste site expectations continue to be met.

An opportunity for improvement exists for the company to include a clause in their agreement with waste handlers that neither the handlers nor the waste site will move waste to a different location without prior notification and approval in writing from the company.

An opportunity for improvement exists for the company to document and clearly communicate the expectations regarding and consequences of employees disregarding the company rules regarding smoking, alcohol or drug use or impairment on company property. This should also include expectations of how situations of an employee under medication and feeling that the medication impairs his/her ability to perform the required job, should be handled by both the employee and the supervisor.

An opportunity for improvement exists for the company to define ahead of time what its goals and expectations are for each open house, so that a review after the event can determine whether the open house was an effective activity to reach the expected goals.

An opportunity for improvement exists for the company to have a clause in their agreement with all outside warehouses that the warehouse management will not undertake the storage of any new material or use the premises for any new venture, without first informing the company of their intent and that the company then informs the warehouse in writing of their approval or disagreement with the plan. Where the company disagrees, the company then should review its decision to continue using that particular facility.

An opportunity for improvement exists at the Cornwall site to improve the employee attitude and buy-in on EH&S and Responsible Care issues. The majority of employees we talked to did not show a high level of concern or belief in these issues or that the company was serious about carrying out the necessary changes.

Extra Miles

The CEO continues to demonstrate his commitment to responsible Care through unfailing attendance and chairmanship of its leadership group.

Best Practices

The company's SAP computer system only allows shipments to Crop Protection customers (distributors) that have valid Crop Life Canada warehouse certification.

The company monitors and graphs numerous Key Performance Indicators, items that demonstrate to the company its progress on issues it deems as important for continuous improvement. These graphs are posted on the company's intranet, and are reviewed annually with all employees.

The company makes use of the "Goal Is Zero" philosophy as part of the company culture in many or its key performance areas (e.g., safety of employees).

The company is committed to sustainable growth through innovation and uses its Eco-efficiency Analysis Tool to assess viable options. The small batch coating process at the Windsor facility, which reduces waste and emissions from cleaning because the coating is mixed in the shipping container is but one example of moving towards sustainability.

The dialogue process that the company has begun with the ENGOs (Pollution Probe, Canadian Environmental Law Association and Toronto Environmental Alliance) is a good method for the company to obtain feedback on the effectiveness of some of its Responsible Care related activities. The CCPA has even expressed interest in participating.

2d) Follow-up on Previous Verification Report Findings, Recommendations, etc.

General

The review of actions and opportunities from the previous reverification has indicated that these were essentially adequately addressed.

Findings

None

2e) Response to Incidents and Concerns since the last Verification

This describes the way the company handled unplanned situations in order to show how the company applied the Responsible Care ethic, and utilized and improved its management systems in light of these situations (see section 4 of the information package).

General

The company had three government directives since the last reverification. These were the result of incidents at Toronto, Georgetown, and Cornwall. All have now been closed.

The Windsor facility is situated along a major route to the border access. Since 9/11, the traffic backup due to the border crossing has the potential to plug access to the facility from major east-west streets, creating emergency access issues. These issues are dealt with under Site Emergency Response.

Findings

None

2f) Performance Measurements

General

The company is well aware of the old saying that “What gets Measures Gets Improved.” Their expressed vision of a number of their ultimate goals being Zero, is a commitment to the belief that all incidents of the nature being monitored are preventable, and is a commitment to continuous improvement. However, without a long range plan with annual targets to be achieved for the annual steps along the way to get there, the company cannot devise an effective time focused plan for an acceptable time-related progress path to achieve this vision. Is the time frame five months, five years or five centuries? What is cost effective and in line with the improvements necessary to stay ahead of its competition? What is the cost of greater than zero incidents to the company? What is the cost involved in getting to where the company plans to be on a year-to-year basis?

While the company spends much effort on monitoring and graphing many key areas, how are these efforts then used to examine the results against an annual set of achievement goals? If the activities and outcomes do not match the desired results, it is time for the management process to change either the targets or objectives, or to change the activities it deems necessary to reach their corporate goals. It is unreasonable to keep doing the same thing in the same way, yet expect somehow that the outcome will suddenly change.

Without a long term set of goals and targets and a shorter term set of annual goals and activities to get there, the company may be deluding itself in the value of the effort expended without an accompanying plan to alter whatever it is doing to improve things.

Let us make no mistake; self-healing is as much about concerns for health, safety, the environment and communicating with the public as it is about competitiveness. This team struggled greatly with the company’s ability to be self-healing. A company that does not have an effective management system to self-heal cannot be expected to remain in a leadership position in the long run. While there was a very definite commitment to Responsible Care on the part of the President and specific other members of the company’s management team, this reverification team’s concern over loop-closing and effectiveness review in a number of Responsible Care related areas continue to be an issue.

Findings

None

3. Team Findings for Specific Code Management Systems

For investigated code aspects, including those identified in the information package (by CCPA in section 6, community dialogue in section 7, and the company in section 8) and those the company, the team or CCPA subsequently identified for more in-depth probing, a summary along the following lines should be included:

- i. This is a “finding requiring action”. A management system element or an aspect of the ethic is not at a fully implemented Responsible Care-in-place level. This finding, and the company’s subsequent action, must be followed-up via the CAP(s), Leadership Group, and CCPA through the annual CEO re-commitment submission and in the next re-verification. *[See list of system elements below].*
- ii. There is an “opportunity for improvement” in the following element(s) of this management system, but improvement is not required for sign-off and there is no need for follow-up by the team or others. These may be plans or ideas the company already has for improving, and the team’s reference to them is intended to be encouragement to follow through. *[See list of system elements below].*
- iii. This management system is “significantly improved”, is an “extra mile” or is a “best practice” and should be shared with other CCPA companies for the following reasons ... *[See list of system elements below]*

Management System Elements that might be cited in above:

Plan

- benchmarking of management systems against best industry practices
- getting input from stakeholders – employees, community, peers, broader public, etc.

Do

- assignment of responsibility
- documentation
- training and testing of people
- resourcing

Check

- auditing and follow-up of deficiencies
- utilization of incidents as learning opportunities
- management of change
- measurement of performance *of* the system – i.e. activities
- measurement of performance *delivered by* the system – i.e. outcomes

Act

- setting of performance targets acceptable to stakeholders – continuous improvement
- communicating performance to stakeholders and assessing feedback
- improving the system based on performance feedback

The team, in addition to citing aspects of management systems for code elements as above, may draw upon team members' experience to suggest specific actions the company might consider (see Note 2 below).

Note:

*1. **Performance** will be used to help assess the robustness of the various management systems, but need for improvement in performance (i.e. emissions reduction, employee injuries, etc.) will not be prima facie, stand-alone evidence for a "finding requiring action". For example, if a company's management systems are focusing effort on turning around poor performance, a positive conclusion may well be justified. If they are not, a "finding requiring action" or "opportunity for improvement" conclusion may be in order.*

The purpose of the performance measurement aspects of the re-verification is therefore not to collect and judge numbers but rather to better assess system effectiveness and the commitment to continuous improvement.

*2. **Specific Actions** - While conclusions about "opportunities for improvement" and "findings requiring action" will be identified in terms of the PLAN-DO-CHECK-ACT elements of a management system, suggestions for specific action may be identified by the team to assist the company. These actions are not prescriptive but merely illustrative, since it is up to the company to identify how it will improve its management systems to be effective and "self healing". Suggestions may carry added weight by virtue of the specific area of expertise or insight of the team member as a community member, industry expert, experienced verifier, professional, etc.*

3a) – 3j) Areas of Focus Identified by CCPA

The code areas listed in section 6 of the information package are addressed in this part of the report.

a) Security

General

All sites have completed their SVAs (security vulnerability self-assessments) and are classified as Level IV sites with the exception of Windsor and Toronto, which are Level III sites.

Findings

A finding requiring action is that the Toronto facility needs to review the security lock system on the personnel doors to ensure that the failure of one of the doors in the system was simply an error on that door security installation rather than a systemic problem with a number of doors. Furthermore, this shortcoming of the door lock system needs to be communicated to all who have master keys so that they are aware of this problem. The manager of the facility was not sure of how he would be notified of such a situation, nor was there an incident report issued. The concern here is the structure of and the adherence to the management system rather than the chance finding of a failure of the security system by the team.

Opportunities

An opportunity for improvement exists in that the Blackie facility needs to resolve the value of having a security system in place at the facility, but without nighttime monitoring.

An opportunity for improvement exists for the Cornwall facility to improve access security along the fence line and especially in the remotely located rail siding where unauthorized activity could take place relatively unnoticed at night.

An opportunity for improvement exists for the Cornwall facility to document a workable bomb threat procedure and conduct a bomb threat exercise to ensure the facility understands the responsibilities of both the First Responders and the facility employees in event of the facility receiving such a threat.

Best Practices

Following the summer 2003 widespread power failure the company assessed shortcomings in their security setup caused by the power failure at affected facilities and shared the findings with their other facilities in order to resolve such deficiencies.

The company also undertook a detailed review of facility security after 9/11 and implemented substantial improvements in its facility security management systems.

b) Process Safety Management (PSM)

Findings

A finding requiring action is that three facilities have yet to reach the “Essential” level in their PSM.

A finding requiring action is that the company needs to define their plan to advance beyond the “Essential” level for individual facilities.

A finding requiring action is that the temporary Toronto facility Joint H&S committee worker representative interviewed has not undergone the required training and certification. The situation results from another trained member who is away ill. However, with the passage of several months the company needs to resolve this issue.

A finding requiring action is that the Windsor site needs to complete HAZOPS for all their processes.

Opportunities

An opportunity for improvement exists in that the Toronto facility should review the relevant sections of the National Fire Code, 1995 to ensure that the intent of appropriate separation between its Class I Division I hazardous material manufacturing area and its adjacent non-hazardous rated warehouse has adequate continued firewall separation to protect the warehouse in event of a large flammable spill and subsequent fire in the manufacturing and drumming area. It was noted during our visit that all the fire doors between these two areas constitute a major section of the firewall and are all kept open during normal operations, thus reducing the protection afforded by the firewall.

An opportunity for improvement exists for the company to continue to perform trend analysis of root causes of EHS incidents. Utilizing the new AIM database the company should be able to ensure that investigators dig further than "Mind not on job" when searching for root cause of incidents and accidents at company facilities. The reporting of "Mind not on job" may also give the wrong impression to employees reading the information about the extent of the investigation process to establish root cause.

An opportunity for improvement exists at the Cornwall operation to review the type of flashlights allowed in the Class I, Division II rated manufacturing area.

An opportunity for improvement exists for the Cornwall facility to document the competency training of those who may operate or calibrate oxygen testers and explosion meters.

An opportunity for improvement exists for the Cornwall facility to locate the batch procedures manuals directly in the area where the operators control their reactors and to require that the manuals be open at the procedure being run.

An opportunity for improvement exists for the Cornwall facility to emphasize the legal requirement that all containers with material in them be identified according to the material they contain. We saw numerous unmarked containers.

An opportunity for improvement exists at the Cornwall facility to emphasize the placement of rail chocks to prevent accidental or unauthorized movement of rail cars located on the facility siding.

An opportunity for improvement exists for the Cornwall facility to improve the safety attitude and personal commitment to EH&S responsibilities at the facility.

An opportunity for improvement exists for the Toronto warehouse operation to further the use of drum grabbers consistent with the practices we saw in Cornwall and Windsor, instead of continuing the obsolete practice of hand rolling of full drums in the shipping area.

An opportunity for improvement exists for the company to focus on the root cause of the proportionately large number of fork truck incidents, through the installation of impact cutout switches on their fork trucks. With the supervisor needing to reactivate the kill switch, there would be an immediate acknowledgement of the incident, rather than unexplained damage to property.

An opportunity for improvement exists at the Cornwall facility to document a procedure requiring that an employee coming on shift and taking over the assignment during a tanker or rail car loading, be required to check the current level of the material in the car and the setting on the loading equipment to ensure he is aware of level and remaining loading time.

An opportunity for improvement exists at the Cornwall facility to require that all shift changes include a discussion between the incoming and outgoing operator concerning the status of the job being taken over.

An opportunity for improvement exists at the Windsor site to review the desirability of having electric motors inside the tank farm dike below the dike wall level in event of a flammable solvent spill or fire.

An opportunity for improvement exists at the Cornwall site to set the next date and frequency for HAZOP reviews.

Extra Miles

The housekeeping was very good at all facilities

Best Practices

The company's AIM, (Accident Incident Module) electronic incident reporting system investigates root cause, assigns corrective action and flags past due date reports. Signoff closes the loop. The facility JH&S committee confirms the change was effective through discussion with the affected employees.

The company's focus on reporting "near misses" and the study that the company completed on near misses in 2003 resulted in a number of areas to focus effort in order to improve safety performance.

Every 3rd party warehouse used by the company is externally audited by QRC. In addition, a third party auditor through the Crop Life Association audits all warehouses storing and tollers handling Agricultural products.

The company's Company Vehicle Driver program provides ongoing training to the approximately one third of the company's employees that drive company cars. The program also tracks car accident statistics and set targets by business group.

c) Greenhouse Gas Emissions

Findings

None

Opportunity For Improvement

An opportunity for improvement exists for the Windsor facility to extend their planning for Greenhouse Gas and VOC emissions to a 5-year plan from the current 1-year planning process.

An opportunity for improvement exists for the Windsor facility to continue their efforts to implement a viable co-generation plant at the facility.

Extra Miles

The Windsor site's WISE (Windsor Initiative for Saving Energy) Program resulted in annual greenhouse gas reductions of excess of 20% from programs completed in 2000 and 2001.

d) Memorandum of Understanding (MOU) between CCPA and governments

Findings

None

Opportunities

An opportunity for improvement exists for the Windsor facility to separate Greenhouse Gas emission data from the MOU collected data, to better focus on means and goals to reduce Greenhouse Gas emissions.

e) Site Emergency Response

Findings

A finding requiring action is that the Abbotsford facility has not yet conducted an emergency exercise with its community first responders.

A finding requiring action is that the Cornwall facility needs to assess its internal response capabilities to a chlorine emergency at one of their neighbouring industrial facilities since they are within those companies Worse Case Scenario perimeter.

A finding requiring action is that the Windsor facility needs to confirm whether there are outside risks to the facility where such emergencies would require "shelter in place" for their employees. If so, a management system to cover this situation is required. The local fire department should be able to assist in confirming the situation.

Opportunities

An opportunity for improvement exists for the Cornwall facility to assist the City of Cornwall control their Combined Sewer Overflow issues by holding back the discharge of their storm water in the containment ponds long enough to allow the city to regain control of the situation.

An opportunity for improvement exists for each site to confirm whether the local emergency assistance providers are capable of handling a facility emergency to the level of expectation the company is willing to accept, including from a risk and insurance perspective.

An opportunity for improvement exists at the Cornwall facility to improve the emergency opening of the plant gate in event of a power failure and to communicate the procedure to appropriate personnel.

An opportunity for improvement exists at the Cornwall facility to provide more personnel with the knowledge on how to open the locked main access gate during an emergency, especially at night.

An opportunity for improvement exists for the Cornwall facility to select a more appropriate winter weather emergency gathering point.

An opportunity for improvement exists at the Cornwall plant to improve the spill protection at rail car unloading sites.

An opportunity for improvement exists for the Windsor facility to translate their community information brochures into the languages prevalent in the neighbourhood.

An opportunity for improvement exists for the Windsor facility to designate specific persons with the responsibility of unlocking the plant gate that is located on the route to the emergency head count gathering area.

An opportunity for improvement exists for the Cornwall and Windsor sites to ensure their bomb threat management systems are workable in conjunction with their community first responders.

An opportunity for improvement exists for the Windsor facility to consider the appropriateness of having employee vehicles parked inside facility property, near storage and production operations, in event of a fire emergency. The rush to save their vehicles could impede the orderly evacuation, head count and arrival of emergency vehicles, especially if the traffic to the USA is congested, blocking some of the exits.

An opportunity for improvement exists for the Windsor facility to confirm that emergency responders have sufficient alternate routes to service the facility in event of an emergency, in view of the frequent blockage of the main access street by traffic waiting to access the border crossing.

Best Practices

The Windsor, Georgetown and Toronto facilities have financed and provided 40 hour HAZMAT training in the USA for local city firefighters/hazmat responders. The training takes place along with BASF Canada and BASF Corporation HAZMAT responders. BASF Canada also provides this training for CANUTEC and Ontario MOE Spills Action Centre responders.

f) TransCAER Outreach

General

The company has a very firm commitment to transportation issues and to the TransCAER concept as a whole. This is exemplified in the detailed effort imparted in this area.

Findings

None

Opportunities

An opportunity for improvement exists for the company to resolve what their Regional Transportation Corridor Route contribution will be.

Extra Miles

The company has been active in the Ontario TransCAER committee and has shared their “best practice” Transportation Risk Assessment and Management system with the committee.

The company’s TransCAER code management system is one of the best the team has seen.

Best Practices

The company conducts an annual “Core Carrier Forum” for their carriers to discuss issues, share best practices. It issues a Best Carrier Award, and intends to include Pollution Probe in the next meeting to promote ideas related to better fuel economy, trip recorders, better RPM control, etc.

The company sells materials of potential application for weapon or drug manufacturing. It had established the proper security safeguards to ensure the products are sold and transported appropriately.

The company has reviewed ALL their carriers Security Plans.

The company is expected to be the first Canadian chemical company to obtain the USA Cross Border Movement CSA (Custom Self-Assessment) approval.

The company has an excellent Transportation Route Risk Assessment and Management Process. The company performs a route risk assessment for each critical product delivery route for every critical carrier. This establishes a specifically defined transportation lane for these products to and from shipping points.

The company's transportation emergency response program is effective in getting carriers to report all incidents to a BASF hotline. Trained responders then manage the incidents to ensure proper clean up. The response process is also effective in root cause identification and the development of corrective actions, which are shared at the annual core carrier forum.

g) Product Stewardship – 2nd Parties

Findings

None

Opportunities

An opportunity for improvement exists for the company to expand their excellent computerized system for categorizing customer risk to all customers.

Extra Miles

The company in conjunction with the Ontario MOE and other stakeholders helped develop and deliver training programs for body shop operators on the proper handling, use and emission control of materials in such establishments. In addition, the company has been very active on the Ontario MOE's stakeholder committee to better understand isocyanate emissions from automotive spray coating operations. The Toronto facility's refinish training centre will be used in June 2004 for experimental testing as part of this endeavour.

Best Practices

The company has introduced an Eco-efficiency Analysis Tool, a strategic life cycle tool, to compares the relative environmental and economic impact of alternative products, production processes and technologies. The purpose is to enable a strategic response on the company's part to the sustainability issues that it and its customers currently face or will be facing in the future. The company is working to add societal impacts to the tool.

The company's Product Risk Ranking Guide is the basis for the system adopted by the CCPA. It ranks customer sites into low, medium or high-risk levels to BASF. All high level sites require a BASF company person to conduct a site assessment prior to doing new business or to continue doing business with that customer. There are product group-specific protocols used to evaluate customers handling isocyanates, coatings or agricultural chemicals. Lower level customers are required to conduct a self-assessment.

All external contact personnel go through Product Stewardship training as part of their customer contact training.

h) Health Effects of Products

General

Findings

None

Opportunities

An opportunity for improvement exists for the company to devise means to ensure end users of Crop Protection products understand and follow the safety precautions included with the product. Currently there is little opportunity for feedback from the end users.

An opportunity for improvement exists for the company to initiate an epidemiological inventory of employees who have been exposed to confirmed or suspected carcinogenic materials to assist the scientific community in resolving whether there is evidence one way or the other when claims of cause and effect are made.

An opportunity for improvement exists for the company to characterize the possible phthalate contents of solid waste and water discharge at the Cornwall plant to confirm whether any suspected endocrine disrupting substances could be in the water discharge or solid waste removed.

An opportunity for improvement exists for the handling of asbestos gasket material to be added to the current asbestos Designated Material Control Program.

i) Health Effects of Plant Emissions

Findings

None

Opportunities

An opportunity for improvement exists for the company to conduct actual fence line emission data to confirm the theoretical data of the C of A study.

An opportunity for improvement exists for the company to document a statement of intent regarding the resolution of the soil contamination at the Cornwall site.

Significant Improvements

The company now sets annual environmental targets that are effective in driving emissions reduction projects at manufacturing sites.

Extra Miles

The company continues to work at reducing user exposure to pesticides through their Crop Life Canada membership, which includes such initiatives as a fully member funded used container collection and recycling program.

The company's development of the product "Natuphos", an enzyme that reduces the phosphorus content in pig manure is another example of helping customer's reduce their impact on the environment.

j) Social Responsibility

Findings

None

Extra Miles

The company's sponsorship in terms of money, technology and "green" building materials for the Earth Rangers Centre at the Kortright Centre in Woodbridge, ON helped the centre with its goal to become a "green" technology showcase.

Best Practices

The company maintains a scrapbook of social responsibility activities in the lobby.

3k) Community Dialogue

This key code area is identified in section 7 of the information package, and the team findings are summarized in this part of the report.

General

Each facility manager has been mandated to conduct a community risk outreach program in the community.

Findings

A finding requiring action is that each facility needs to conduct an effectiveness review of their community reach outreach program to ensure that affected residential and commercial neighbours understand what is required of them in event of a facility emergency.

A finding requiring action is that all facilities need to confirm whether the local hospitals are capable of handling the number of residents, employees, and First Responders likely to require treatment from their Worst Case Scenarios. This is especially true of facilities with chlorine on the premises or on the premises of other nearby facilities where a release could impact on the company's own facilities.

A finding requiring action, where “Shelter In Place” is expected of community residents, is that the facility confirms annually that these residents have received, understand the meaning, and are aware of how and when to initiate this process. Confirmation of how the community plans to announce the emergency needs to be verified as effective for the extent and immediacy of the possible emergency.

A finding requiring action is that the Windsor facility needs to decide whether “Shelter in Place” is an appropriate course of action for its residential and industrial neighbours affected by the facility’s Worse Case Scenario.

A finding requiring action is that community brochures need to be rewritten to include “Shelter in Place” instructions for facilities where this is the appropriate action during a facility emergency.

A finding requiring action at the Cornwall facility is that the facility needs to establish an effective emergency plan and a safe location for “Shelter in Place” for facility employees in event of a chlorine emergency from the several nearby facilities with chlorine storage and operations in the community.

A finding requiring action at the Cornwall facility is that the facility needs to confirm whether the Cornwall EMO plans are adequate for the protection or evacuation of its facility and its employees (especially in event of a chlorine emergency).

A finding requiring action is that the company needs to complete the site Worse Case Scenarios emission plume calculations for the Toronto and Cornwall facilities.

Opportunities

An opportunity for improvement exists for the company to move from tabletop exercises to actual on-site emergency exercises in communities where they have not already done so. The learning experience concerning the things that go wrong during an on-site simulated exercise is invaluable.

An opportunity for improvement exists for individual sites to discuss their increased security management with their CAP in a meaningful discussion while not being too specific as to reveal confidential protective measures. The important thing here is to hear what the community feel their plant related security issues are and to give enough information to assure the community that you are not asleep at the switch, without publicly divulging details of specific confidential security precautions you have implemented.

An opportunity for improvement exists for the Windsor facility to develop a person-to-person relationship with the local media organizations in order to have an already established contact in event of a facility emergency.

An opportunity for improvement exists for the Windsor facility to improve the effectiveness of their school outreach program, in reaching the minds of the students, based on the conclusion that the results of their efforts were not in line with the effort expended. Their focus, for example, might be extended to the Teachers’ Colleges, where the attitudes of new teachers could be used to better reach the students.

An opportunity for improvement exists for the company to use simpler language to explain their on-site chemicals risks and hazards on their website and individual facility community pamphlets.

An opportunity for improvement exists for all facilities to improve the contents of community pamphlets regarding the specific risks that the facility poses to residential and commercial neighbours and how to react should there be an actual emergency.

An opportunity for improvement exists for all facilities to ensure that there is a clear understanding of the areas of responsibility between the facility personnel and the community First Responders during an emergency and that the public is aware of who will alert them, when and how this is to be done and if "Shelter in Place" is expected, that both residential and commercial neighbours understand the meaning and how to protect themselves.

Significant Improvements

The company's annual Responsible Care report that is published on the Internet and is communicated with all employees and key community stakeholders is a significant improvement in outreach.

Extra Miles

The company became concerned over a proposed daycare centre planned to be located in a building used as one of their 3rd party warehouses. They expressed sufficient concerns and reasons opposing the move, that the project was abandoned.

Best Practices

Site Managers' activity objectives include requirement to communicate with MPs, MPPs and City Councillors.

3l) Areas of Focus Identified by the Company

This is where the team findings on areas identified in section 8 of the information package are addressed.

Findings

None

3m) Additional Areas Addressed During the Re-verification

General

BASF is working with the Vinyl Council of Canada to promote Responsible Care type of environment with non-members. There is no benefit to BASF to be verified under the VCC process since that protocol is still in its infancy. However, they do provide valuable resource assistance and advice to vinyl companies struggling with components similar to Responsible Care.

Findings

None

Best Practices

BASF has continued to work with the Vinyl Council of Canada in assisting VCC members, to implement their Environmental Management Plans. Networking, supporting and influencing non-CCPA member companies is an important part of the Responsible Care ethic.

The company's office ergonomics program is used to assess and promote the use of ergonomically efficient office workstations.

4. Conclusion

This reverification team found that the [Responsible Care ethic](#) is well understood and to a very large degree guides the daily actions and decisions of [BASF Canada's](#) management team and its employees. The Executive Contact is deeply involved in the commitment and the process of Responsible Care and is leading a sound approach to making it even more widespread among the employees and the public. There are still, as always, opportunities for improvement. We detected eagerness on the part of the entire team for our comments and ideas for the continuous improvement of their Responsible Care Management system.

It is the team's conclusion, after reviewing the company's Information Package, and having interviewed their management team, their employees, members of their local Community Panel, and other local neighbours and officials that the company's actions and decision-making processes indeed [continue to demonstrate the Responsible Care ethic](#). The company has effective management systems in place to meet the Responsible Care codes and its other expectations. We find it has demonstrated itself very capable of identifying and correcting deficiencies through its management systems, processes, and performance indicators, demonstrating continuous improvement consistent with the expectations of the company's stakeholders, including neighbours, employees, peers, governments, and private owners.

It is also this team's conclusion that the company is [sufficiently self-healing](#) and forward looking in carrying out its responsibilities, that there is no need for the team to follow up on the company's progress in completing the findings requiring action and in assessing and taking action, where appropriate, on the team's additional comments regarding opportunities for improvement.

[The team recommends that CCPA officially recognize this re-verification with an award at the next suitable occasion.](#)

5. BASF Canada Company Comments.

The re-verification process is a large part of what makes Canada's chemical industry the leader in Responsible Care. The periodic review of management systems by expert outside eyes, acknowledgement of successes and identification of areas that can be improved helps companies like BASF Canada set the path for the future. This re-verification was no exception. In addition to confirming areas of strength and weakness that we had identified, the team pointed out a number of issues that had not previously been considered. The overall effect will be to help the company become more effective in the marketplace and with our stakeholders.

BASF Canada would like to thank the dedication and hard work of the re-verification team, including community representatives for helping to make this Responsible Care re-verification a success. We commit to share this report with our stakeholders and report on the status of our continuous improvement through the leadership group meetings.

John N. Clarke
President, BASF Canada
August 2004

Appendix 1: Company Description

BASF is a multinational company with head offices in Germany. In North America the overall business is run as a NAFTA entity. However, the Canadian President manages the Canadian part of the company through the head office located in Toronto, Ontario. This Canadian President is the Responsible Care Signing Executive. Included under the CCPA's Responsible Care Ethic are all Canadian facilities and operations.

The Canadian President is responsible for the administrative and functional areas of the company in Canada, setting the strategy for the Canadian business. He is also part of the company's NAFTA management structure for North America, where continent-wide business strategies and decisions are planned.

As the company operates within a global company structure, and with the Canadian component being part of its NAFTA organization, the Canadian company utilizes and provides resources to both sides of the border. For the purposes of this re-verification, we are focused on the Canadian organization directly under the President's direct control and responsibility, (the President is the Signing Executive committing the company to the Responsible Care Ethic). This consists of the Toronto head office, and all the Canadian manufacturing, blending, warehousing, and distribution and resale facilities.

The company has undergone many changes, acquisition and divestitures since the last re-verification in December 1999. Among these was the sale of its major facility in Arnprior, Ontario. The company currently has six manufacturing sites situated in Abbotsford B.C., Blackie Alta., Cornwall, Georgetown, Toronto, and Windsor Ont. It blends animal nutrition products in the Abbotsford and Georgetown facilities, blends and distributes polyurethane chemicals in Blackie, manufactures and distributes plasticizers in Cornwall, manufactures automotive OEM (Original Equipment Manufacturer) paint coatings in Windsor, and operates a polyurethane blending operation and a general distribution centre in Toronto. The company is currently consolidating distribution into a small number of North American major distribution centres, of which one is the Toronto distribution center.

The company's business is divided into the following four basic business segments: Chemicals, Plastics, Performance Products and Agricultural Products and Nutrition. Chemicals include: importation and resale of basic petrochemicals, inorganics, intermediates and specialties and manufacturing of plasticizers. The plastics segment includes importation and resale of styrenics, engineering plastics and polyurethanes and custom blending of polyurethane systems. Performance Products are tailor-made products and application processes that includes; chemicals, coatings and functional polymers. Coatings, includes a combination of manufacturing and importation of automotive OEM and refinish and industrial coatings. Also included in coatings is Automotive Refinish Technologies – a series of small trade sales stores supplying of automotive refinish supplies to auto-body shops. Some of the other performance products include importation and resale of pigments, paper chemicals, soap and detergent raw materials and chemicals for adhesives. The Agricultural Products and Nutrition segment includes supplying agricultural products (crop protection) and fine chemicals to the farming, food processing, pharmaceuticals, animal and human nutrition and personal care industries.

Approximately 75% of the company's business in Canada involves resale of imported products, the remaining 25% involves the manufacturing of products, either sold in Canada or exported within the NAFTA area. The company uses a number of warehouses, including manufacturing site warehouses, BASF company-owned or leased warehousing premises, and outside warehouses operated by other parties.

Facilities visited during this re-verification were Toronto, Cornwall and Windsor, with teleconference calls to facilities in Abbotsford, Blackie, and Georgetown.

Appendix 2: Team and Contacts

This section identifies:

- **Reverification team members**

Roland Blondin, Team Leader and Industry Representative
Cam Dillabough, Industry Representative,
Kris Lee, Non-Industry Representative, Science High School Teacher.
Zig Maleszewski, Community Representative, Toronto, Ont.
Lisa Harvey, Community Representative, Cornwall Ont.
Les Chaif, Community Representative, Windsor, Ont.
Chris Smith, Community Representative, Abbotsford, B.C.,
Richard Durand, Community Representative, Blackie, Alta.
Barb Baron, Community Representative, Georgetown, Ont.

- **Company Contacts:**

John Clarke, President BASF Canada, Signing Executive For Responsible Care,
David Peters, Manager, Responsible Care, Overall Coordinator,
Steve Ransome, Operations Manager, Georgetown, Ont., Manufacturing Code
Coordinator,
Patty Vandierendonck, Regulatory Products Manager, R&D Code Coordinator,
Agricultural Products Contact
Ivan Videc, Manager Physical Distribution, Transportation and Distribution Codes
Coordinator,
Martine Despatie, Communications Manager, CAER Code Coordinator,
Jennifer Evers, Ecology and Safety Hub Member, Hazardous Waste Code
Coordinator,
Craig Leavitt, Business Manager Functional Polymers, Business Product Stewardship
coordinator,
Carlos Leschziner, Director Operational Services, Assistant Chair, Responsible Care
Steering Committee,
John Rusheleau, Senior Ecology and Safety Engineer
Ernie Henderson, Product Safety Consultant
Kerry Bowman, Business Director, Polyurethanes, Styrenics and Intermediates
Kay Schaltz, Business Director, Performance Chemicals and Intermediates
Paul Souliere, Business Director, Coatings and Engineering Plastics
Dennis Watt, Site Manager, Windsor, Ont.,
Dave Sinclair, Engineering and Maintenance Manager, Windsor, Ont.,
Al Bailie, Human Resources, Windsor, Ont.,
Mark Thibeault, Safety & Quality Coordinator, Windsor, Ont.,
Dean Clevett, Plant Engineer, Windsor, Ont.,
Chris Banfill Security Supervisor, Windsor, Ont.,
Rob Slikboer, JH&S Committee member, Windsor, Ont.,
Wendy Durocher, JH&S Committee member, Windsor, Ont.,
John Jones, JH&S Committee member, Windsor, Ont.,

Jeff Meloche, JH&S Committee member, Windsor, Ont.,
Ping Wu-Demoe, JH&S Committee member, Windsor, Ont.,

William Crump, Site Manager, Cornwall, Ont.,
Jason Veinot, Process & Production Engineer, Cornwall, Ont.,
Mike Davidson, Cornwall JH&S Committee Member Cornwall, Ont.,
Joe Lemire, Cornwall JH&S Committee Member, Cornwall, Ont.,
Barry Nicholas, Site Manager CoCo Warehouse & Plant, Toronto, Ont.,
Tony Feitor, CoCo Warehouse Supervisor, Toronto, Ont.,
Charlie Thornhill, Toronto JH&S Committee Member, Toronto, Ont.,
Kirk Davies, Site Manager Blackie, Alta
Stuart Carsience, Site Manager, Abbotsford, B.C.

- **Outside Contacts:**

Dave Fields, Windsor Fire Chief
Dr. Edwin Kwan Lap Tam, Professor, University of Windsor
Mary Chaif, Resident, Windsor,
Tom O'Brien, Local resident, Cornwall,
Lisa Harvey, Emergency Management Coordinator, City of Cornwall

- **Reverification Review Process.**

All contacts were either by individual contact or by telephone interviews. The Abbotsford, Blackie, and Georgetown sites were contacted by telephone. Interviews were conducted of the plant personnel, then through a joint telephone conference call with all plant managers and their community representatives followed by a private interview of the Community Reps only. The Toronto Offices, manufacturing and distribution facility, and the Cornwall and Windsor sites were visited in person, where individual interviews were conducted. The ART (Automotive Refinishing Trade) outlet stores, the company's retail outlets for aftermarket automotive refinishers, were not part of this visit. They should be part of the next reverification.

August 30, 2004