



RESPONSIBLE CARE[®] Verification Report

Jungbunzlauer Canada Inc.

May 7 - 9, 2014



Chemistry Industry
Association of Canada



Responsible Care[®]
Our commitment to sustainability.

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EXECUTIVE SUMMARY

This report documents the observations and conclusions of the independent verification team tasked with conducting a Responsible Care Verification of Jungbunzlauer Canada Inc. (JBLC). The verification was undertaken on May 7 to 9, 2014 and included a team visit to the company Canadian manufacturing site in Port Colborne, ON. During the course of the verification, the team had the opportunity to interact with a range of company personnel, as well as community members associated with the company's Community Advisory Panel. Attachment 2 contains a list of those individuals interviewed and their affiliations.

This was the third Responsible Care verification for JBLC, the last being completed in April of 2011

While considering all aspects of the Responsible Care Commitments during this verification the team placed an emphasis on conducting an in-depth examination of company aspects related to its Responsible Care management system.

As a result of the examination conducted, the verification team is of the opinion that the Responsible Care Ethic and Principles for Sustainability are guiding company decisions and actions, and that a self-healing management system is in place to drive continual improvement. The team believes that the company is capable of responding to the Finding Requiring Action identified during the verification - summarized below and discussed in detail in the report. The verification is complete and no further involvement is required by the verification team.

Signed: __Gerry Whitcombe__

Date: Sept 16, 2014

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

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SUMMARY OF VERIFICATION TEAM OBSERVATIONS

Findings Requiring Action:

1. There no formal Industrial Hygiene or Medical Surveillance programs as required by OP26 and OP27. It is recommended that the company establish (and document) its position on each code ('Plan' part of the management system, which, among other inputs, could include benchmarking with peer companies) and based on its position develop appropriate programs.
2. The overall Responsible Care management system is not documented. Refer to the list presented in the team's observations of the management system below for scope possibilities and suggestions on creating such a system.

Works in Progress:

1. The company's review process utilizing their code matrix is a work in progress. Reviews of the Operation Activities area should carefully consider the specific requirements in codes OP7-OP21.
2. The activities involving the company's motor carrier, specifically those ensuring an understanding of and conformance to all areas related to the Motor Carrier Evaluation is a work in progress, as is the completion of the assessment of marine forwarders.
3. The company's management of change process (currently referred to as PDCA Forms) is a work in progress and needs documentation. CIAC's six Principles for Sustainability have been built into the process (could be a successful practice when fully implemented).
4. The company's plan to complete exit signage in operations areas is a work in progress.

Improvement Opportunities

1. Consider including the criteria listed in the Operations Activities Code area in the current modifications to the company's procedure-review process.
2. In the Laboratory Practices area, review and possibly broaden criteria for Job Hazard Analyses (JHAs) on the 'pilot' area to ensure that the elements listed in OP7 are included.
3. Review the company's Critical Infrastructure / Business Continuity plan using CIAC guidance (Appendix A – Self-Assessment Guide, Business Continuity Planning Implementation Aid”).
4. Build a process with the neighbouring facility to ensure notification in the event of an emergency (at the neighbouring plant) is delivered in a timely manner.
5. Consider increasing the visibility of Responsible Care internally at the visitor entrance, in Environmental Health and Safety policies and in the leadership meeting.
6. Review and update the Community Dialogue process:
 - utilize, amongst others, the JCAP to comment on each code element for Operating Site Communities.
 - ensure the procedures covering this area are comprehensive vis-à-vis codes AC125-136
 - ensure procedures are included in the company's procedure review cycle.
 - consider utilizing CIAC's SCOPE measure to track performance in outreach activities.
 - dialogue with the community about further expansion plans (AC131)
7. Review the 'Other Stakeholders' area of the Accountability Code, with the goal of a clearly articulated company position for each subsection to facilitate the company in moving forward and to facilitate the verification process. For example, for subsection vi) Non-governmental Organizations, code elements 147-150.

Successful Practices:

1. The company reduced the concentrations of on-site stored Ammonia and HCl to reduce the potential impact of an incident involving the chemicals. The increased cost associated with transporting and storing a more dilute chemical is offset by a much reduced potential impact on the community and there being no longer a need to develop and maintain an Environmental Emergency Plan (E2 Plan). The company has, however, decided to maintain their E2 Plan to be used in conjunction with their on-site emergency plan to ensure their response to an emergency is of the highest quality.

INTRODUCTION

About Responsible Care Verification

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

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

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

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

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

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

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

About Jungbunzlauer Canada Inc.

Jungbunzlauer Canada Inc. (JBLC) is a registered Ontario corporation owned by the Swiss holding company Jungbunzlauer Holding AG. At the Port Colborne facility JBLC produces anhydrous and aqueous citric acid. Citric acid is an all-natural raw material that is used in products as diverse as cleaning materials, soft drinks, cosmetics and pharmaceuticals.

The facility, which began production in 2002, is located on a two hundred and forty acre site on the Welland ship canal in Port Colborne, Ontario in an industrial development area known as the Carbohydrate Valley. The site's fermentable raw material, corn syrup glucose, is supplied by the neighbouring Ingredion (formally Casco, Corn Products International) facility. Due to the inherent sensitivity of the fermenting process the company has its own electricity/steam co-generation plant. Since the last verification the addition of a second main electricity feeder line coming from the east across the channel of the Welland Canal provides not only security of supply to a continuous process but also a means of managing peak load demand.

The site's main waste product, biomass sludge, is processed and sold as an organic based fertilizer. Other process waste solids, known as mycelium, are processed and sold as an animal feed ingredient. JBLC ships directly to customers and to two distributors in Canada. The bulk of shipments is to the US and invoiced through JBL (Boston) Inc. although shipped from the JBLC facility. All US shipments from US warehouses to customers (end users) are under control of JBL (Boston) Inc.

The facility operates twenty four hours a day year round and employs about 80 people. The site is unionized with two unions, one covering operating engineers (5 employees) and the other plant operators (40 employees). The remaining 30 employees are non-union staff.

For further information about the company please visit their web site at: <http://www.jungbunzlauer.com/>

About This Verification

The verification of JBLC was conducted on May 7th to 9th, 2014 and included a team visit to company Canadian manufacturing site in Port Colborne, Ontario. During the course of the verification, the team had the opportunity to interact with a range of company personnel, as well as community members associated with the company's Community Advisory Panel. Attachment 2 contains a list of those individuals interviewed and their affiliations.

This was the third verification exercise completed for JBLC. The last verification was completed in March 2011.

The verification team was comprised of the following individuals.

Gerry Whitcombe	<i>Team Leader</i>
David Powell	<i>Public-At-Large Verifier</i>
Gary Bruno	<i>Community Representative</i>

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

Design and Construction of Facilities and Equipment

The company either utilizes its management of change (MOC) process for replacement and small capital projects or engineering support in Europe for major projects. Its current MOC process, the New or Modified Equipment (NOMEs) process is being replaced by an under-development PDCA Forms process. This new MOC process has demonstrated positive outcomes in testing and (significantly) includes CIAC's six Principles for Sustainability in its review section.

However, apropos code OP4, neither the MOC processes nor HS01-10 ("New Chemical, Equipment or Procedure Safety Review") formally incorporates the concept of inherent safety. This was observed in the previous verification and it was stated that there should be a process to ensure that all code aspects in this section are included in company processes. The team did not see documentation that would indicate progress in this area.

There is a finding in the Management System section of this report referring to the requirement for a documented management system. In such a management system there should be a policy position statement regarding this code area and clear guidance on incorporating a review for all Design and Construct code elements in the developing PDCA Forms process.

Notwithstanding these observations the team found that the combination of a good MOC process, corporate expertise, a new local engineering department in Port Colborne and local (Canadian) contract engineering resources sufficiently meet Responsible Care code implementation expectations.

Operations Activities

A finding from the previous verification stated:

1. *There is a finding requiring action for the company to develop and implement a process for the periodic review of the full range and scope of its business to assess, prioritize and document the rigour of procedural controls needed for responsible operations" to comply with OP7.*

The company's response was to institute a periodic review process utilizing its code matrix document. Since the results were not available for this verification this process is viewed as a work in progress. In performing these reviews we encourage the company to review the detail contained within the codes, specifically (from OP7):

*"Each company shall periodically review the full range and scope of its business to assess, prioritize and document the **rigour of procedural controls needed** for responsible operations"*

Notice that the criteria in OP7 also apply to sub-sections ii), iii) and iv) (OP8-OP21).

The scope of the Operations Activities area encourages a broad review of operations to confirm the desired performance and outcomes and then to understand how the actual performance and outcomes could differ from those intended to the extent that they lead to stakeholder concerns.

Care is needed to ensure that items that could lead to serious concern are not missed or skimmed over in the analysis, simply because they rarely occur or have not caused concern in the past.

JBLC is currently modifying its procedure-review process to incorporate Kaizen continuous improvement techniques. The concepts contained within codes OP7-OP21 would be ideal as review criteria for procedural controls in a modified process.

One could then envision a system incorporating the code matrix review and the procedures review whereby:

- from the code matrix review, all operations are considered in order to understand the breadth of the operational controls that are needed and which results in a prioritization of those controls,
 - a procedure-review process that includes code criteria (OP 7-21) would cover many of the listed controls and,
 - an ad-hoc process reviewing the remaining, mostly lower priority, controls.

The analytical laboratory area is covered under an ISO 9001 certification and includes normal routine quality analysis as well as the testing of batches using small scale pilot fermenters. The latter area is physically separate from the analytical lab and given the nature and frequency of the work conducted should be reviewed using the criteria from his section.

In the Transportation and Physical Distribution area the team observed that the company has selected a CIAC Partner carrier and is developing their relationship including auditing and performance expectations.

The maintenance area was not specifically covered in this verification.

For the areas reviewed in this section the team is of the opinion that the company has sound operating procedures that are subject to regular review. With evidence of a robust procedural controls review process the company will meet Responsible Care code implementation expectations for this area.

Works in Progress:

The company's review process utilizing their code matrix is a work in progress. Reviews of the Operation Activities area should carefully consider the specific requirements in codes OP7-OP21.

The activities involving the company's motor carrier, specifically those ensuring an understanding of and conformance to all areas related to the Motor Carrier Evaluation is a work in progress, as is the completion of the assessment of marine forwarders.

Improvement Opportunities:

Consider including the criteria listed in the Operations Activities Code area in the current modifications to the company's procedure-review process.

In the Laboratory Practices area, review and possibly broaden criteria for Job Hazard Analyses (JHAs) on the 'pilot' area to ensure that the elements listed in OP7 are included.

Safety and Security

The company's protocols, procedures, organization and overall performance is very good for this area and the team is of the opinion that Responsible Care code implementation expectations are being sufficiently met.

Occupational Health and Safety (OH&S)

The company does not have a common style for its procedures and the team recommends using the OH&S style of written documentation as a template. This is offered as a suggestion for the Responsible Care Team in the Management System section of this report.

The team did not find documented programs to satisfy OP26 and OP27 although an ad-hoc process to identify and deal with industrial hygiene issues has been used.

"Each company shall have a program to provide to its employees and all other involved personnel [e.g. contractors] the necessary knowledge and tools to recognize potential safety, health and environmental hazards. It shall include as a minimum the following;

- e. OP26 an industrial hygiene program appropriate to the health hazards in the workplace;*
- f. OP27 an employee occupational health program, including medical surveillance requirements and health screening."*

The team observed that there were locations in the operations area from which you could not see exit signs, and was told that this was being addressed.

Process Safety

In response to a finding in the previous verification the company decided to look at a replacement for its management of change process (NOMES). The intent was to broaden the approach to managing change by utilizing a Plan-Do-Check-Act approach and to incorporate continual improvement by building in CIAC's six Principles for Sustainability. This has resulted in a very novel and innovative procedure (called PDCA Forms) which was in testing at the time of the verification. At this stage of development the procedure is not formally documented and is noted as a work in progress. Utilizing the Principles for Sustainability would strongly suggest a review during the next verification for possible inclusion as a successful practice.

The company is up to date on its process safety management self-assessment. It is only required to be at the essential level, but has a goal to achieve enhanced.

Emergency Management

The company has a comprehensive Emergency Preparedness and Response procedure (HS09-03) and in concert with their E2 Environmental Emergency plan fully meet Responsible Care implementation expectations. It is of note that because of changes made to the amount and concentrations of stored chemicals on site the company is not required to maintain an E2 plan and does so voluntarily.

The changes made to the on-site stored chemicals were to reduce the concentration of Ammonia to 19% from 26% and HCl to 28% from 32%. Risk profile calculations now show that nearest neighbours are not impacted by potential releases but, nevertheless, the company has continued to communicate with neighbours about shelter in place.

The company and their raw material supplier share a property line. The neighbour maintains a quantity of hazardous material in tankage close enough to the company that it would become a concern should an incident occur. Timely notification is essential and the company should engage their neighbour to obtain assurances such communication is a priority.

Malicious Intent

The company has appropriate programs and procedures to meet code expectations. It mainly focuses on food based security criteria and also is registered to the USA Department of Homeland Security C-TPAT program.

There is not, however, an overall policy/statement for this area. See the Management System section of this report for suggestions about including this area in the overall Responsible Care Management System.

Critical Infrastructure/Business Continuity

The company has a process to meet the requirements of this code area but hasn't checked it against CIAC guidance.

Incident Investigation

The company utilizes the HS089-04 (Incident Reporting), HS01-07 (Communications) and HS02-08 (Safety Meetings) procedures in meeting code implementation expectations.

Findings Requiring Action:

There no formal Industrial Hygiene or Medical Surveillance programs as required by OP26 and OP27. It is recommended that the company establish (and document) its position on each code ('Plan' part of the management system, which, among other inputs, could include benchmarking with peer companies) and based on its position develop appropriate programs.

Works in Progress:

The company's management of change process (currently referred to as PDCA Forms) is a work in progress and needs documentation. CIAC's six Principles for Sustainability have been built into the process (could be a successful practice when fully implemented).

The company's plan to complete exit signage in operations areas is a work in progress.

Improvement Opportunities:

Review the company's Critical Infrastructure / Business Continuity plan using CIAC guidance (Appendix A – Self-Assessment Guide, Business Continuity Planning Implementation Aid”).

Build a process with the neighbouring facility to ensure notification in the event of an emergency (at the neighbouring plant) is delivered in a timely manner.

Successful Practices:

The company reduced the concentrations of on-site stored Ammonia and HCl to reduce the potential impact of an incident involving the chemicals. The increased cost associated with transporting and storing a more dilute chemical is offset by a much reduced potential impact on the community and there being no longer a need to develop and maintain an Environmental Emergency Plan (E2 Plan). The company has, however, decided to maintain their E2 Plan to be used in conjunction with their on-site emergency plan to ensure their response to an emergency is of the highest quality.

Environmental Protection

The company has demonstrated a clear Responsible Care Ethics approach to handling its environmental impact.

Some examples where this has impacted the bottom line as well as the community are:

- They have energy use targets and recently (April 2014) achieved the best ever energy usage per tonne of product for this facility.
- They have reduced the concentration of stored ammonia and HCl on site and thus reduced the risk to the community
- They have replaced HCl with H₂SO₄ thus increasing acidity, reducing cost and reducing risk to the community (for equivalent volumes of material)
- They have established stretch goals for improved environmental performance
- They have developed a saleable waste material generated by their wastewater treatment process
- Their only process waste material is a non-hazardous diatomaceous earth filtrate.

The company submits an annual Environmental Report to its parent company which is very comprehensive. Of note are the many references and quotes from the company's commitment to CIAC Responsible Care.

Based on these observations the company fully meets Responsible Care code implementation expectations for this area.

Resource Conservation

The parent company strongly supports a global approach to environmental, economic and societal sustainability. Their principal raw material is bio-based and their products are biodegradable and non-hazardous. Corporate focus is on energy consumption, gas emissions and water usage and waste usage. Locally the company applies continual improvement to contribute to corporate goals and is looking forward to formalizing its continuous improvement approach through their Kaizen implementation. The company's current activities sufficiently meet Responsible Care implementation expectations.

Promotion of Responsible Care By Name

The company has made progress in promoting Responsible Care and is committed to continuing this journey. Since the last verification a banner style flag has been obtained, Responsible Care training is an annual requirement, the RC logo has been added to MOE annual reporting and the company has joined the Port Colborne Longterm Fire Master Planning Committee and the Environmental Advisory Committee. Further improvements are presented below.

The team believes that small companies may benefit by managing this area (along with the other code requirements for Promotion of Responsible Care by Name) by consolidating company effort with the Responsible Care Team for an overall company directed approach. This is covered in the Management System section of this report. The team is of the opinion that Responsible Care implementation expectations are being met

TEAM OBSERVATIONS CONCERNING STEWARDSHIP CODE

Research and Development (R&D) Expectations

The company does not conduct research activities in Canada. They do conduct process optimizations which are covered under their change management process.

The team is of the opinion that this code area is currently not applicable but diligence is required in determining whether new site activities are more appropriately covered by this code rather than the Operations Code.

Expectations Beyond R&D

a) Raw materials, Products and Services Characterization and Evaluation

As was described earlier the company has effected changes to the type and concentrations of its purchased chemicals reducing potential exposure to levels below which a regulated environmental emergency plan is not required. Corporate direction is very strong in this area and the company continuously evaluates opportunities for improvement.

b) Promotion of Responsible Care by Name

The company has demonstrated that where opportunity exists with external partners it has promoted Responsible Care.

c) Security

Purchased chemicals are generally commodity chemicals and are handled appropriately from regulatory and Responsible Care perspectives, the company's principal raw material is a sugar solution which is purchased from a neighbouring facility and delivered via pipeline.

d) Communication through the Value Chain.

Material safety data sheets (MSDS) are handled according to regulation. JBL corporate provides information in print and web form that describes the company's approach to sustainability.

e) Historical Hazardous Waste Practices

The company has been in operation in Canada for only 12 years and does not have any waste sites which would qualify under this section.

The team is of the opinion that in those areas where the company is directly involved or where it can influence that it meets code implementation expectations for the 'Expectations Beyond R&D' area.

Expectations of Companies With Respect to Other Parties

The company does not directly utilize warehouses, terminals, toll manufacturers, packagers or contract R&D labs. It does locally purchase the services of maintenance contractors, motor carriers and waste handlers.

For those services handled by JBL (Boston) JBLC has reviewed documentation and deemed it to be acceptable under its commitment to Responsible Care. There is one sales person for Canada who works out of Boston and visits Canadian customers. There is no requirement to report to JBLC on issues of concern. As well, opportunities related to SC123 are not necessarily considered.

SC123: 'Proactively look for opportunities to share information with all other parties through the value chain that will lead to sustainability and/or quality improvements in the raw materials, products and services.'

For these reasons a suggestion to include the sales representative on the RCT is presented in the Management System section of this report.

In those cases where it is directly involved (motor carriers, waste contractors and maintenance contractors) the company has performance criteria and actively reviews that performance with the contractor.

The team is of the view that Responsible Care code implementation expectations are being met for this area.

TEAM OBSERVATIONS CONCERNING ACCOUNTABILITY CODE

Operating Site Communities

Three procedures (RC01-01 “Community”, RC01-02 “Community Rights, Responsibilities and Concerns” and RC01-03 “Community Dialogue”) have been written to support activities in this area. They were written in 2006 and only one has been reviewed and updated since then (RC01-01 in 2008). In the team's opinion the period of time between reviews is excessive and these procedures clearly should be included in the company's efforts to revamp its procedure-review cycle.

That being said, the company has extensive community dialogue involvement including its Jungbunzlauer Community Advisory Panel (JCAP), involvement with local response organizations (Long Term Fire Master Plan Committee, Environmental Advisory Committee), maintaining an E2 plan when not required and a recent “Lets Chat” brochure intended to increase communication with the public and employees.

Social responsibility (AC128) is generally covered under Appendices to Codes: Social Responsibility later in this report. Specific local initiatives are being done but there was no plan for the last three years nor is there one for the next three. The criterion has been to focus on local organizations that do not have as much access to funding as larger organizations. In the Management System section of this report the team suggests allowing the RCT to manage social responsibility activities.

Improvement Opportunities:

Review and update the Community Dialogue process:

- utilize, amongst others, the JCAP to comment on each code element for Operating Site Communities.
- ensure the procedures covering this area are comprehensive vis-à-vis codes AC125-136
- ensure procedures are included in the company's procedure review cycle.
- consider utilizing CIAC's SCOPE measure to track performance in outreach activities.
- dialogue with the community about further expansion plans (AC131)

Other Stakeholders

In review of this area the team observed an ad-hoc management process with no clear understanding and overall direction; however, many examples supporting code requirements have been captured in the company's cross reference matrix. For each subsection, the company should attempt to “understand and articulate those aspects of Responsible Care, including social responsibility, which are appropriate for the size, scope and risk profile of the company as a whole, and strive to meet them.”

The company has made significant progress in meeting their commitment with respect to TransCAER and is appropriately participating in the revision of the program.

APPENDICES TO CODES: SOCIAL RESPONSIBILITY

The corporate parent has clearly articulated its position on corporate citizenship as part of its statements on Social Sustainability. In practical terms these statements translate into maintaining employment during economic downturns (as much as is possible), goals for increasing employment at existing facilities, purchasing locally when possible and by financially supporting local initiatives.

The company clearly recognizes its social responsibility obligations and seeks opportunities to contribute, as in recently where two surplus chemical analyzers were donated to a local college.

Of note is corporate parent support of an independent body (The Karl Kahane Foundation) whose resources are available to be considered for local charitable donations. In 2013 a substantial grant was made to the Port Colborne Fire Department for the purchase of a Hazard House and Kitchen simulator for use with children and

seniors to educate them on fire prevention and safety. Past contributions have included high school scholarships, SPARKS athletic programs, women's place shelter and playgrounds in community parks.

TEAM OBSERVATIONS ON THE COMPANY MANAGEMENT SYSTEM

The team observed ample evidence that the Responsible Care codes of practice are being (have been) implemented, reviewed and maintained under the auspices of the Responsible Care Team. There are regular team meetings where ongoing activities related to Responsible Care, including past verification findings and opportunities, are managed. The annual attestation is data-based with formal signing-executive acceptance. The message about Responsible Care is finding its way to employees as evidenced by their understanding that one of the purposes of Responsible Care is being accountable to the community.

However, there is no documentation for the overall Responsible Care management system. The team views current activities as somewhat ad-hoc in the sense of them being a reaction to the requirements rather than an understanding of the intent of the codes while applying the Ethic and Principles for Sustainability in the context of the company's business model.

This finding is a continuation of a finding from the previous verification. In that case the finding was presented as:

4. It is a finding requiring action that not all aspects of the Responsible care Commitments are covered by a Plan-Do-Check-Act style of management system. To fully comply with these commitments the code sections listed under "Code Areas Requiring Management Systems" (as a minimum) must be incorporated into existing systems or into new management systems.

Code Areas Requiring Management Systems

- .a) Operations Code 2. Design and Construction of Facilities and Equipment (refer to this report, §2.1.1);
- .b) Operations Code 4. v) Critical Infrastructure/Business Continuity (§2.1.3);
- .c) Operations Code 6. Resource Conservation (§2.1.5);
- .d) Operations Code 7. Promotion of Responsible Care by Name (§2.1.6);
- .e) Stewardship Code 2. Expectations of Companies (§2.2.1);
- .f) Stewardship Code 3. Expectations of Companies with Respect to Other Parties (§2.2.2);
- .g) Accountability Code 2. Operating Site Communities (§2.3.1) and
- .h) Accountability Code 3. Other Stakeholders (§2.3.2).

The company response to the finding was to create a possible replacement for its existing management of change (MOC) process (NOMES) to accommodate a Plan-Do-Check-Act cycle and incorporate the six Principles of Sustainability. This is an excellent approach to MOC and early results indicate significant improvements in process performance but in the team's opinion it does not address the intent of the finding.

The glossary entry for 'Management System' in CIAC's commitment package gives the following definition:

System(s) primarily used by managers, comprised of a work process designed to provide governance to the organization in the pursuit of an organization's mission. Outputs include organizational values, goals, policies, rules, standards, controls, resource needs, plans/programs and strategies, work process designs, measurements, benchmarks, and stewardship, corrective actions, and review, with the goal of continual improvement of both the management system and the activity it manages.

It is the team's opinion that the Responsible Care Team (RCT) should be charged with creating a documented Responsible Care Management System (RCMS). In the context of the definition given above the RTC should give consideration to the following items identified during the verification (not meant to be an all-inclusive list):

- Use the CIAC Responsible Care Management System guidelines (in particular the components listed under the Plan-Do-Check-Act sections) as a template for the documentation of the company's management system.

- Develop a Responsible Care Team charter (mandate) and structure
- Review membership and consider adding Canadian Sales representation to the RCT
- Consider granting to the RCT responsibility for managing Social Responsibility
- Require policy positions/statements or documented processes for all major code areas (e.g. Malicious Intent). Utilize the review matrix to contain these statements (when applicable) (i.e. where there is currently no overall documentation for or company position on a particular area):
 - Design and Construction of Facilities and Equipment (specific observation was that the team could find no reference to adopting the principles of inherent safety),
 - Malicious Intent,
 - Transportation Emergency Response,
 - Business Continuity Planning,
 - Industrial Hygiene,
 - Medical Surveillance,
 - Resource Conservation and
 - Promotion of Responsible Care by Name.
- If an area (or code element) is considered to be not applicable to the company, a statement to that effect should be documented.
- Standardize on a formal policy and procedure style (perhaps based on the OH&S style) for all areas of the company and create a template.
- Consider managing certain code areas from an overall team approach (e.g. Promotion of Responsible Care by Name).

A management system is an important tool in achieving company goals and if not documented makes the application of the Kaizen principles of continual improvement more difficult if not impossible to apply.

Findings Requiring Action:

The overall Responsible Care management system is not documented. Refer to the list presented in the team's observations of the management system above for scope possibilities and suggestions on creating such a system.

Observations on the PLAN Step

It is the team's observation that the company does a reasonably good job for this step of the management system. However, because that system (Responsible Care Management System) is not documented, areas such as those listed above, are not being managed optimally.

Observations on the DO Step

The company has a full suite of documented procedures covering all aspects of its processes. However, some areas related to Responsible Care are not documented and some documentation is out of date.

It is of significant note that JBLC has decided to replace its New or Modified Equipment (NOMES) process with a new approach to management of change. Its new PDCA Forms approach attempts to heighten the overall perspective of managing change by recognizing that all aspects of the Plan, Do, Check and Act (PDCA) process especially apply when managing change. It has taken the opportunity to integrate CIAC's six Principles of Sustainability into the process which in the team's opinion could become a successful practice when implemented. The new process has not been documented (procedurized) yet and implementation is a work in progress with both the NOMES process and the PDCA Forms process simultaneously in use.

Observations on the CHECK Step

The company does a comprehensive annual review of all 152 code elements and documents the results in its code matrix spreadsheet. Not all areas have documented company positions or expectations for implementation which can cause ambiguity and uncertainty when assessing a code element for its level of implementation or performance once implemented.

A normal audit regimen is in place for environment, health and safety and the team is of the opinion that the company is well covered in this area.

Observations on the ACT Step

The company has many processes by which it can discover issues and opportunities and has demonstrated its willingness and ability to act on those discoveries.

TEAM OBSERVATIONS ON THE RESPONSIBLE CARE ETHIC AND PRINCIPLES FOR SUSTAINABILITY

Committing to Responsible Care means being guided in its planning and actions by the Responsible Care Ethic and Principles for Sustainability. It is the team's observation that this is the case at JBLC.

The Principles for Sustainability are reproduced below with team observations of some examples where the company has demonstrated its commitment.

WORK FOR THE IMPROVEMENT OF PEOPLE'S LIVES AND THE ENVIRONMENT, WHILE STRIVING TO DO NO HARM:

- reducing concentration of hazardous materials and thus practically eliminating the possibility of off-site impact as the result of a incident
- developing a saleable product from process wastes
- striving for energy and water use reductions

BE ACCOUNTABLE AND RESPONSIVE TO THE PUBLIC, ESPECIALLY OUR LOCAL COMMUNITIES, WHO HAVE THE RIGHT TO KNOW THE RISKS AND BENEFITS OF WHAT WE DO:

- have embraced the community dialogue process
- JCAP
- Open houses

TAKE PREVENTATIVE ACTION TO PROTECT HEALTH AND THE ENVIRONMENT:

- very strong safety culture and performance
- formalizing continuous improvement culture
- very strong process-waste separation and handling
- innovative approach to management of change

INNOVATE FOR SAFER PRODUCTS AND PROCESSES THAT CONSERVE RESOURCES AND PROVIDE ENHANCED VALUE:

- utilize a fermentation process with a bio based raw material
- located facility on property next to raw material supplier

ENGAGE WITH OUR BUSINESS PARTNERS TO ENSURE THE STEWARDSHIP AND SECURITY OF OUR PRODUCTS, SERVICES AND RAW MATERIALS THROUGHOUT THEIR LIFE CYCLES:

- limited opportunity as product is food grade
- are active in encouraging raw-material supplier to understand Responsible Care
- TransCAER
- CIAC
- FSSC (Food Safety Systems Certification) management systems 22000 trade group involvement

UNDERSTAND AND MEET EXPECTATIONS FOR SOCIAL RESPONSIBILITY:

- clear corporate support
- local community philanthropic support
- donation of asset to local college

- Karl Kahane Foundation donation championed by facility

WORK WITH ALL STAKEHOLDERS FOR PUBLIC POLICY AND STANDARDS THAT ENHANCE SUSTAINABILITY, ACT TO ADVANCE LEGAL REQUIREMENTS AND MEET OR EXCEED THEIR LETTER AND SPIRIT:

- are involved with CIAC on issues
- maintaining E2 plan exceeds environmental requirements

PROMOTE RESPONSIBLE CARE® AND INSPIRE OTHERS TO COMMIT TO THESE PRINCIPLES:

- have a new Responsible Banner at the facility's entrance gate
- talk with raw material supplier about joining Responsible Care
- use the RC logo on their MOE report

VERIFICATION TEAM CONCLUSION

As a result of the examination conducted, and in consideration of the observations communicated within this report, the verification team is of the opinion that the Responsible Care Ethic and Principles for Sustainability are guiding company decisions and actions, and that a self-healing management system is in place to drive continual improvement. The team believes that the company is capable of responding to the Finding Requiring Actions identified during the verification.

The verification is complete and no further involvement is required by the verification team.

APPENDIX 1: COMPANY RESPONSE TO VERIFICATION REPORT

- Comments believed to be accurate (various management systems in place) however could benefit from more Responsible Care (elements & ethics) overlap to create a more self-healing and robust overall management system.
- Will take all points into consideration moving forward in the spirit of continual improvement.
- Felt it took a little too long to receive the report and may have lost a little momentum
- Although many customers in our industry do not recognize or require Responsible Care, we will strive to educate and apply the codes and ethic (where appropriate) to ensure sustainability of the company's operations both here in Canada and Globally.

APPENDIX 2: INTERVIEW LISTS

A: Company Personnel Contacted During Verification Process

NAME	POSITION	LOCATION
Ryan Waines	Environmental Manager	Port Colborne
Sharon Grant	VP Finance & Administration	Port Colborne
Lee Dimascio	VP Operations	Port Colborne
Chirag Shah	Purification Manager	Port Colborne
Bill Jamieson	Quality Assurance Manager	Port Colborne
Julia Rodriguez	Head of Order Processing	Port Colborne
William Baldwin	Maintenance Coordinator – Mechanical	Port Colborne
Elaine Carpenter	Human Resources Coordinator	Port Colborne
Bob Maunsell	Engineering Manager	Port Colborne
Dave Borgatti	Purchasing Coordinator	Port Colborne
Edwin Martin	Shift Engineer - CoGen	Port Colborne
Foti Zannis	Spore Technician	Port Colborne

B: External Stakeholders Contacted During Verification Process

NAME	POSITION	LOCATION
Gary Bruno	JCAP member	Port Colborne
Tom Cartwright	JCAP member /Fire Chief	Port Colborne



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