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RESPONSIBLE CARE®

VERIFICATION REPORT

NATIONAL SILICATES

March 25 & 26, 2013

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

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EXECUTIVE SUMMARY

This report documents the observations and conclusions of the independent verification team tasked with conducting a Responsible Care Verification of National Silicates. The verification was undertaken on March 25 to March 26, 2013 and included a team visit to Etobicoke (Toronto) ON. This was the sixth Responsible Care verification completed for National Silicates. The last verification was completed in April 2010.

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: _____ Date: 28 April, 2013

Gerry Whitcombe
Verification Team Leader

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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1. There is a Finding Requiring Action that the company did not have its Dislocation Policy available. (OP38)..... 9

Improvement Opportunities

1. There is an improvement opportunity when the company utilizes the eMOC process in the design and construction of facilities and equipment to structure the review required to allow for the consideration of OP1 - OP6 in the same way Canadian Federal, Provincial and Municipal laws and regulations are considered.
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2. There is an improvement opportunity to review OP7 to determine whether the company should implement a periodic review of its systems to ensure that adequate and effective procedural controls are in place covering all hazards. 8
3. There is an improvement opportunity to develop a program to diminish process dust and to develop a program to remove accumulated deposits from process areas (OP22). 9
4. There is an improvement opportunity to review the requirements of this section and modify, as necessary, the pandemic plan, to cover all code areas. Make use of CIAC's 'Business Continuity Planning Implementation Aid to conduct the review (OP 49-55). 10
5. There is an improvement opportunity to influence corporate or to develop a local modification to track CAPA items to ensure timely closure. 10
6. There is an improvement opportunity to broaden the Etobicoke recycle program to include kitchen recyclables. 10
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15. There is an improvement opportunity to identify, understand and engage NGO's that might have an impact on operations and/or products. 14

Successful Practices

1. Although not required to do so the company utilizes UN designated packaging which is, in the team's opinion, a successful practice. 8
2. The company's support for its employees BBS effort and in particular the BBS conference held annually at a rotating North American sites, run by and for employees is a successful practice. 9
3. The company has also introduced BBS to its contractors which the team views as a successful practice. 9
4. The recent opportunity for the Valleyfield plant manager to discuss manufacturing (and Responsible Care) with representatives from a Chinese firm is a 'successful practice' 14

1. Introduction

1.1 About Responsible Care Verification

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

The Responsible Care® Ethic and Principles for Sustainability

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

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

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

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

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

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

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

Additional information on Responsible Care and/or the verification process can be found at the CIAC website www.canadianchemistry.ca, or by contacting the Responsible Care staff at CIAC at glaurin@canadianchemistry.ca or (613)292-8663 extension 233.

1.2 About National Silicates

National Silicates is a wholly owned subsidiary of PQ Corporation based in Malvern PA. PQ Corporation in turn is owned by The Carlyle Group a U.S. based private equity firm. In Canada National Silicates produces sodium and potassium silicates in solid, liquid and powder form at their Etobicoke ON facility, sodium silicates in solid and liquid form at their Valleyfield QC facility, liquid sodium and potassium silicates at their Whitecourt AB facility, liquid sodium silicates at their Parksville BC facility, liquid sodium silicates and magnesium sulphate at their Surry BC facility. A small liquid sodium silicate storage facility is located in Fort Frances ON and a Technical Center is located in Etobicoke ON

National Silicates or their parent company have developed several eco-friendly products for the water treatment industry, oil and gas drilling, the paving industry and the paper recycling industry.

For a more extensive description of both National Silicates and PQ Corporation and their products visit: www.silicates.com or www.pqcorp.com .

1.3 About This Verification

The verification of National Silicates was conducted on March 25 to March 26, 2013 and included a team visit to the Etobicoke (Toronto) ON manufacturing facility and Technical Center. During the course of the verification, the team had the opportunity to interact with a variety of company personnel. Attachment 2 contains a list of those individuals interviewed and their affiliations.

This was the sixth Responsible Care verification completed for National Silicates. The last verification was completed in April, 2010.

The verification team was comprised of the following individuals.

Name	Affiliation	Representing
Gerry Whitcombe	CIAC Verifier	Industry (team leader)
Gerry Moss	CIAC Verifier (Observer)	Industry
Brenda Lorentz	CIAC Verifier	Public-At-Large
Chris Goddard	Local Community Rep	Etobicoke
Nicole Thibeault	Local CAP	Valleyfield
Archie Kerr	CIAC Verifier (Observer)	Industry

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

During the verification of National Silicates, the verification team looked for evidence that the company was addressing the expectations documented in the Responsible Care Commitments (152 code elements plus 28 benchmark and collective expectations). While considering all aspects of the Responsible Care Commitments during the verification, the team placed an emphasis on conducting a more in-depth examination of certain company aspects identified by the company or the team. These were generally related to CIAC's current emphasis on sustainability.

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

1. **Findings Requiring Action** document instances where the verification team observes specific company actions (or the absence of company actions) which are inconsistent with the detailed codes and benchmark and collective expectations contained in the Responsible Care Commitments. Where possible, the verification team will communicate, based on their experience and judgment, why it is inconsistent and how the observation relates back to a possible gap in the expected management system and / or the ethic and principles underpinning company actions. The team may also provide advice on how the situation might be responded to.
2. **Works in Progress** document instances where the verification team has observed the company self-initiating actions in response to identified gaps and deficiency arising from other internal or external audit and review activities, or where the company has self-initiated important improvement opportunities.

3. **Successful Practices** document instances where the team believes the company has taken actions that strongly support sustained excellence in performance, and which should be communicated throughout the CIAC membership.

4. **Improvement opportunities** identify instances where the verification team has observed company actions and decision making as being largely consistent with the expectations detailed in the Responsible Care Commitments, but for which the team is of the opinion that the company could support further improvement by considering alternate or additional benchmarks when undertaking its planning and decision making.

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

2.1 Team Observations Concerning Operations Code

The company has a very strong implementation of the Operations Code.

2.1.1 Design and Construction of Facilities and Equipment

The company has access to corporate resources for any grassroots facility and any such facility would be build using global standards. For new construction at existing facilities they utilize their newly implemented global eMOC (electronic Management of Change) process which is based on an electronic tool. Customization of this tool is possible but would require global approval.

However, the items listed in OP1-6 should be considered for any new design and one way these could be handled locally would be the same way the company currently handles laws and regulations. That is, similar to how an expert in regulation reviews all affected changes an expert in OP1-6 would review all 'Design and Construct' changes.

One example of this would be a review of all plant expansions for their impact on the company's buffer zone as required under OP3.

There is an improvement opportunity when the company uses the eMOC process for the design and construction of facilities and equipment to formally include reviews by experts in code elements OP1 – OP6.

The company meets Responsible Care implementation expectations for this area.

2.1.2 Operations Activities

The company has many policies, standards and procedures to ensure that controls are applied appropriately to the sections covered in this area (General Considerations, Laboratory Practices, Transportation and Physical Distribution and Maintenance). Procedural reviews are conducted regularly and as necessary when an eMOC has been initiated. In addition annual 'Aspect and Impact' reviews related to the company's certification under ISO14001 are conducted.

In this code area OP7 requires companies to 'periodically review the full range and scope of its business....' In performing such reviews the company can ensure that all control procedures are consistent, appropriate for the hazard under consideration and up-to-date.

Section e) of OP7 requires all hazards (not just highly hazardous materials as covered under Process Safety Management) are understood and that effective procedural controls have been put in place. The company's primary hazards are electricity, heat and pressure and it is the unintended release of this energy which would be of concern.

The company's goal of zero injuries is excellent and the utilization of an employee led BBS (Behaviour Based Safety) process (among other programs) will be a large contributor to achieving the goal. An additional and independent contributor to the goal would be an increased focus on process safety and the team believes a periodic and systematic approach in applying OP7, with an initial focus on section e) would be beneficial.

There is an improvement opportunity to review OP7 to determine whether the company should implement a periodic review of all of its systems to ensure that adequate and effective procedural controls are in place covering all hazards.

Of note in the Transportation and Physical Distribution area is the company's practice of conducting their own audits of motor carriers to ensure they obtain performance information. By doing so the company feels they are establishing partnerships with their carriers.

Although not required to do so the company utilizes UN designated packaging which is, in the team's opinion, a successful practice.

The company has a very small maintenance department and utilizes contractors for heavy demand or specialized trade work. Their systems are simple and effective and include a formal preventative maintenance program. Their current performance metrics are based on reliability but they are introducing a planned/unplanned work metric to get a different perspective on performance.

The company meets Responsible Care implementation expectations for this area.

2.1.3 Safety and Security

The team reviewed the six subsections of this area and finds that the company fully meets Responsible Care implementation expectations.

a. Occupational Health and Safety

The company has a comprehensive suite of programs that work towards ensuring positive outcomes related to employee health and safety. Prior to adopting a zero injury target the company's performance was typically second quartile but has since improved significantly. The company has stayed the course with its Cardinal Safety Rules (judged a best practice in the previous verification) and has improved its BBS process (also judged a best practice) by including an employee attended and led BBS conference.

The company's support for its employees BBS effort and in particular the BBS conference held annually at a rotating North American sites, run by and for employees is a successful practice.

The company uses the BBS system to monitor its contractors which the team views as a successful practice.

The company has an active Industrial Hygiene program and operates under designated substance programs for asbestos and silica. Monitoring has determined that nuisance dust levels during process operating conditions are well within standards but admits that the accumulation of dust into solid masses in the operating areas is a problem. The team concurs and would encourage the company to develop a program to contain the dust and clean-up process areas such that accumulated dust does not pose a tripping, slipping or visibility hazard (being able to see safety markings). The team acknowledges the company's efforts in Valleyfield to reduce dust build-up.

There is an improvement opportunity to develop a program to diminish process dust and to develop a program to remove accumulated deposits from process areas (OP22).

b. Process Safety Management

The company does not handle quantities of List 1 or 2 chemicals and thus is at the essential level on the PSM Survey. They do have corporate resources available to handle process safety management reviews when necessary.

c. Emergency Management

The company has excellent programs to deal with site and transportation emergencies. Their annual community walk-about are well established at all plant sites. Although their Dislocation Policy has been created it was not available for the team to view. One option is to consider placing it in the company's Emergency Response procedures.

There is a Finding Requiring Action that the company did not have its Dislocation Policy available. (OP38)

e. Critical Infrastructure/Business Continuity

The company has a pandemic plan but has not generalized it consider other types of business interruptions and align with this code area.

There is an improvement opportunity to review the requirements of this section and modify, as necessary, the pandemic plan, to cover all code areas. Make use of CIAC's 'Business Continuity Planning Implementation Aid' to conduct the review (OP 49-55).

f. Incident Reporting and Investigation

There are no major issues in this area. The company's CAPA (Corrective Action Preventative Action) program allows for the identification, collection, reporting and analysis of incidents. The system does not, however, ensure closure.

There is an improvement opportunity to influence corporate or to develop a local modification to track CAPA items to ensure timely closure.

2.1.4 Environmental Protection

The company's activities in this area are largely driven by the continual improvement requirements of their ISO14001 certification. They have recently found a company that takes tank bottoms that were previously landfilled at one of the US facilities. The company actively seeks to recycle material such as pallets and scrap metal. In some areas their program is inconsistent as with office and kitchen recyclables in Etobicoke.

There is an improvement opportunity to broaden the Etobicoke recycle program to include office building recyclables.

The company fully meets Responsible Care implementation expectations for this area.

2.1.5 Resource Conservation

The company is a large user of energy (natural gas and electricity) for their furnaces. Their raw materials include water, sand and potassium and sodium carbonates to manufacture silicates. There are on-going programs to optimize the use of these resources but dramatic reductions are unlikely. However, the nature of the company's products themselves contributes to resource conservation. Two examples are product use in the de-inking of waste paper, and as an additive in tire compounds that improves gas mileage and is more environmentally friendly to produce than the carbon black that it replaces in the tire matrix.

There is an improvement opportunity to develop and maintain an updated listing of products that contribute to resource conservation (and what that contribution is) and, among other objectives, to use this material in the promotion of Responsible Care.

The company meets Responsible Care implementation expectations for this area.

2.1.6 Promotion of Responsible Care by Name

The company has taken many opportunities to promote Responsible Care by name and have been particularly successful at their plant sites. As is the case with many small companies they are limited in their ability to broadly apply this code requirement. Because of this and the fact that this topic is present in all code areas a consolidation of effort may benefit the company.

There is an improvement opportunity to consolidate and document efforts to promote Responsible Care by Name for all code areas under one company banner.

The company meets Responsible Care implementation expectations for this area.

2.2 Team Observations Concerning Stewardship Code

The team was introduced to the parent organizations new Director of Sustainability and encourages the company to maintain close relations with this function.

There is an improvement opportunity to utilize the new Director of Sustainability to assist in the promotion of Responsible Care and Sustainability in Canada to the parent organization

2.2.1 Expectations of Companies

a. Research and Development (R&D) Expectations

The company is involved in only limited R&D activity centered on technical development related to modifying existing products into new applications. Activities are governed by their new product development process. All code elements in this area were reviewed and found to meet implementation expectations.

b. Expectations Beyond R&D

The company has a corporate Product Stewardship function responsible for many aspects of this code area. There is a risk ranking process for raw materials and

products and product stewardship reviews are prioritized on a highest to lowest hazard ranking. The reviews are scheduled annually for every new or changed product. Close contact is maintained between this function and Canadian personnel when dealing with Canadian regulations.

During the team's interviews with employees many personal anecdotes or comments related to the promotion of Responsible Care were shared. Some examples are:

- resource conservation through the use of company products such as adhesives in cardboard
- local service club involvement,
- employee son, in a summer job setting, getting the Responsible Care message
- during a MOE investigation employees put answers in the context of Responsible Care

The team believes this is a somewhat untapped resource that supports the opportunity described above (2.1.6) to consolidate 'Promotion of Responsible Care by Name' activities.

The 'Security', 'Communication Through the Value Chain' and 'Historical Hazardous Waste Practices' sections were all reviewed and found to be in good order.

An example of Product Stewardship in action was provided. A shipment of product was being readied for delivery, when an employee noticed the name of a new customer on it, being a manufacturer of Chinese noodles. The employee's product knowledge alerted him to the fact that the product was not food grade material, but was destined for a food company. He alerted Customer Service and the shipment was stopped.

2.2.2 Expectations with Respect to Other Parties

The company is appropriately implemented for all code elements in this area. Although audits are required of suppliers (raw materials, carriers, warehouses, terminals and toll manufacturers), and customers the company does not make use of warehouses, terminals or toll manufacturers (one terminal is scheduled to close). Distributors generally belong to the Canadian Association of Chemical Distributors. The company keeps performance metrics on current suppliers and in the case of carriers meet with them quarterly. The company generally does not have Responsible Care wording in their commercial contracts.

There is an improvement opportunity for the company to introduce Responsible Care wording into commercial contracts as they are renewed or written.

2.3 Team Observations Concerning Accountability Code

In general the Accountability code has been well implemented with all employees interviewed by the team being enthusiastic ambassadors for Responsible Care.

2.3.1 Operating Site Communities

The team observed a very active program to engage local stakeholders. All sites (with the exception of Valleyfield) do annual walkabouts and many employees are tuned in to community events to keep the company plugged in. The company held open house events at Etobicoke and Valleyfield and by all accounts they were very successful. At Etobicoke the company moved a sign indicating the number of days since the last injury inside and a community member recalls noting its absence. Apparently it was a significant method of communicating with, at least, this individual.

There is an improvement opportunity to return the 'days since last injury' sign to its former location since it is also a communication device for the community.

The company struggles somewhat with how and what to communicate to the community. The Responsible Care message and company results from implementation are topics to consider for communicating to the community.

There is an improvement opportunity to formalize a regular and innovative way to communicate to the community both as a business and a Responsible Care company.

The team views the Chamber of Commerce 'Reaching Out Award' recently given to the company as a significant achievement.

2.3.2 Other Stakeholders

This area is new to Responsible Care companies but National Silicates has made some significant progress in implementing the code elements.

With the section dealing with Public Policy the company has been actively engaged with defined roles and responsibilities. However, they are not documented.

There is an improvement opportunity to document the who, what, when, why and how often of the company's expectations on interaction with public officials

In the Finance area the company has had and has taken the opportunity to

communicate the Responsible Care story to a bank. This is a good model for other institutions.

There is an improvement opportunity to present to all similar institutions, such as the company's insurance carrier, the same Responsible Care story as was presented to the bank.

With regard to the section dealing with Non-Governmental Organizations the team would make the following suggestion:

There is an improvement opportunity to identify, understand and engage NGO's that might have an impact on operations and/or products.

Under the Business heading the team was made aware of an interaction that exemplifies what could be done in this area:

The recent opportunity for the Valleyfield plant manager to discuss manufacturing (and Responsible Care) with representatives from a Chinese firm is a successful practice.

3. Team Observations on the Company Management System

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

The verification team studied National Silicates' management system(s) and compared and contrasted the attributes of that system(s) to those of a self-healing overall management system as discussed in the CIAC Management System Guide. The verification team's related observations to the company management system(s) are as follows:

The team found a documented (NS-HSE-000), well-structured, competent and complete Responsible Care management system. There were no major weaknesses that the team observed however, the team did note that a glossary or index to the company's web-based document management system would be useful.

3.1 Observations on the PLAN Step

During the PLAN Step of the management system, the company decides what the goals of the company are and how they will be met. In determining those goals, it is expected the company will look inward, across its operations, but will also look outward,

considering the expectations of: stakeholders; regulatory requirements; relevant CIAC Responsible Care Commitments and supporting tools; and other industry benchmarks.

The company has thoroughly documented:

- all inputs into the management system
- company involvement with external committees that could influence the management system (identifying the committee and assigning responsibility)
- policies, procedures and work practices that cover the components of the Plan section of CIAC's Management System Guide (MSG) and
- a company response to each of the 28 "Benchmarks and Collective Expectations" as presented in Appendix F of the Responsible Care Commitments.

In considering the PLAN Step of National Silicates' management system, the verification team observed that the components exceed Responsible Care implementation expectations.

3.2 Observations on the DO Step

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

The company has corporate PQ or Canadian requirements that cover the 'Do' components as listed in the MSG.

Although not included as an improvement opportunity the team would encourage the company to routinely challenge the implementation status-quo for each code element (that is, what the company feels satisfies the intent of each code element) as presented in the company's cross-reference of management system elements and RC codes.

As indicated by the opportunities presented in 2.1.1 and 2.1.2 the team encourages the company to rethink the area of "Identification of risk, critical areas of focus" to include eMOC "Design and Construction of Facilities and Equipment" code reviews and a broader periodic review of operational controls for existing processes.

In considering the DO Step of National Silicates' management system, the verification team observed that the components fully meet Responsible Care implementation expectations.

3.3 Observations on the CHECK Step

During the CHECK Step in the management system, actions carried out in the DO Step are assessed to determine if they are actually being carried out according to plan, and whether they are achieving the desired outcomes and delivering continual improvement. Here, the overall management system and components will be reviewed along with

employee competences for assigned responsibilities, internal and external audits will be undertaken, incidents will be assessed to identify root causes, and performance measurement will be conducted and reviewed.

The company is registered under ISO 14001 and ISO 9001 and has competent internal and external audit processes to maintain these certifications.

A Responsible Care self-assessment is conducted annually and the results are reviewed by management.

Competencies have been determined and are verified for applicable responsibilities.

Incidents are thoroughly investigated and root cause analysis is utilized where appropriate.

Management reviews are routinely conducted and performance reviews are held regularly.

In considering the Check Step of National Silicates' management system, the verification team observed that the components fully meet Responsible Care implementation expectations.

3.4 Observations on the ACT Step

During the ACT Step in the management system, the company translates the results of the CHECK Step into corrective actions for improvement. This includes revisiting the PLAN Step to decide whether changes are needed to the company's stated goals or action plans, policies and procedures for achieving those goals. Considerations when examining the Act Step include whether and how: audit and review findings are responded to; performance is communicated internally and externally; employee and contractor performance is rewarded and corrected, etc.

In considering the Act Step of National Silicates' management system, the verification team observed that the components fully meet Responsible Care implementation expectations.

4. Team Observations on the Responsible Care Ethic and Principles for Sustainability

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

The verification team carefully observed National Silicates' decision making processes and actions and compared and contrasted the attributes of those with the attributes of a company guided by the Responsible Care Ethic and Principles For Sustainability as discussed in the Responsible Care Commitments (Appendix E). The verification team's related observations on the company's application of the Responsible Care Ethic and Principles for Sustainability are as follows:

The company is forward thinking in their approach to sustainability and has developed a “Sustainability Pillars” vision to help focus employees. The five pillars are Social Responsibility, Economic, Environmental, Process and Product. Each pillar has documented long term goals.

The team observed that the company has a deep commitment to align with the Ethic and Principles for Sustainability.

- work for the improvement of people’s lives and the environment, while striving to do no harm;
There are many examples of how the company has applied this principle including:
 - the recent introduction of a zero recordable injury philosophy implemented with local flavours
 - the goal of zero level three incidents
 - the intrinsic nature of the company's products

- be accountable and responsive to the public, especially our local communities, who have the right to understand the risks and benefits of what we do;
In Etobicoke the company is involved with the Toronto West CAER group, the SEELC (South Etobicoke Environmental Liaison Committee) group (since disbanded) and SEIEA (South Etobicoke Industrial Employers Association) as well as employee involvement in groups such as Rotary. In Valleyfield the company is involved in comité de liaison (the local industry CAP) as well as the CMMI (Comité Mixte Municipalité Industries). Both major sites participate in community site tours.

- take preventative action to protect health and the environment ;
The company has many HSE policies and procedures globally but their implementation and support to an employee run BBS program is laudable.

- innovate for safer products and processes that conserve resources and provide enhanced value;
There are many examples of where the company's products align with this principle including:
 - water treatment chemicals
 - drilling industry replacement chemicals
 - chemicals that allow asphalt to be used at a lower temperature thus reducing VOCs
 - personal care products such as the grit in toothpaste
 - de-inking chemicals allowing for cellulose recycling and paper adhesives

- engage with our business partners to ensure the stewardship and security of our products, services and raw materials throughout their life-cycles;
The company routinely engages with its business partners up and down the supply chain where stewardship of inbound materials and products are of concern. A good example is the supply of company products to the tire industry where they are used to improve gas mileage and reduce greenhouse gases.
- understand and meet expectations for social responsibility;
The company has done a very good job of responding to this principle. From its charitable donation program where it matches employee donations, to its educational bursary program, hospital donations, to hiring standards related to equal pay and equal rights. Just recently the company has agreed that for all Canadian sites without a recordable incident the company will donate a tree and a park bench to a deserving location.
- 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;
The company has been involved with all CIAC activities in this area and often works on its own to align with this principle
- promote awareness of Responsible Care, and inspire others to commit to these principles.
The company is committed to promoting Responsible Care which the team observed during the interviews. For a small company this can be a struggle but they are committed to focusing on this area in the future.

5 Verification Team Conclusions

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

Attachment 1: Company Response to Verification Team Report

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

The verification process was very thorough and National Silicates will be re-implementing a dislocation policy to ensure full compliance with the expectations of the codes of practice.

National Silicates will communicate the results of the verification exercise with its CIAC peers at their next meeting, and will discuss the verification results with our stakeholders, including those representing communities near our operating sites. We will give consideration to the Improvement Opportunities identified by verification team and will assist the CIAC in communicating and sharing the identified Successful Practices to other CIAC members. Plans will be developed and implemented to respond to the Findings Requiring Action identified by the verification team. Our progress in implementing those plans will be discussed when preparing our Annual Statement of Re-Commitment to Responsible Care, and communicated to the verification team at the time of our next verification.

Jennie Houle
Manager, Health, Safety and Environment
National Silicates
May 22, 2013

Attachment 2: Interview Lists

A: Company Personnel Contacted During Verification Process

Name	Position	Location
Adam Chanonat	Operator / JHSC	Toronto
Adelina Santaluce	Customer Service / JHSC	Toronto
Carmen Romano	Plant Manager	Toronto
Dave Patterson	Sales Manager	Toronto
Erin Bendig	Product Stewardship Manager	Malvern
Jennie Houle	HSE Manager	Toronto
Joe Dotson	Director, Corporate Sustainability	Malvern
Larry Masaro	Director, NA Plant Operations	Toronto
Lynda Ryder	Director, Employee Relations	Toronto
Mark Duffy	Mechanic / JHSC	Toronto
Mary Ann Villavarayan	Financial Analyst / BBS	Toronto
Michel Brassard	Regional Operations Manager / Plant Manager	Valleyfield
Mike Vinca	Traffic Manager	Toronto
Steve Kidman	Operator / BBS	Toronto
Tim Evans	Technical Director	Toronto