



Chemistry Industry  
Association of Canada

Association canadienne  
de l'industrie de la chimie

# RESPONSIBLE CARE<sup>®</sup>

## VERIFICATION REPORT

### INEOS CANADA PARTNERSHIP

### JOFFRE LAO PLANT

*April 03 & 04, 2012*

#### Disclaimer

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 INEOS Oligomers, Joffre LAO Plant. The verification was undertaken on April 03 and 04, 2012 and included a team visit to the Joffre manufacturing facility. The verification team also met with representatives of the facility's community advisory panel. This was the fourth Responsible Care verification completed for INEOS Oligomers, Joffre LAO Plant. The last verification was completed on June 22-24, 2009.

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 the Stewardship and Accountability Codes of Practice.

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 range of Findings 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.



Dave Mack  
Verification Team Leader

April 12, 2012

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

The following relate to instances where the current status is at variance with the requirements of CIAC Responsible Care Commitments.

- i. Address the following aspects with regard to the selection and on-going Responsible Care related performance monitoring of those entities with whom the facility does business:
  - Communicate related CIAC Responsible Care expectations to the company's corporate function(s), external to the facility, who have responsibility for the selection and monitoring of transportation carriers and for transportation emergency operations in the U.S.A., and engage them in dialogue to ensure that their processes are in alignment with those expectations (code element OP12, 13, 14 & 41-47);
  - Communicate related CIAC Responsible Care expectations to the company's corporate function(s), external to the facility, who have responsibility for the selection and monitoring of such entities as bulk storage terminals, product container transloading operations, product swaps with other producers, and customers, and engage them in dialogue to ensure that their processes are in alignment with those expectations (code elements ST 117 & 118);
  - Establish a program for the on-going monitoring of Responsible Care related performance of the facility's smaller contracted waste disposal facilities (e.g., recyclers, etc.) similar to that extended to major disposal sites (code element OP75); and
  - Establish a process for the on-going performance monitoring of raw material and chemical suppliers with respect to Responsible Care expectations (code element ST 118).

### Improvement Opportunities

The following relate to suggested actions that would enhance the effectiveness of current programs.

- i. Establish a workplace exposure profile that addresses all potential physical, chemical and environmental exposure hazards, and use this as the basis for on-going employee workplace exposure hazard monitoring.
- ii. Consider establishing an employee environment committee to focus on areas where enhancements may be made to current practices.
- iii. Include Responsible Care information in the facility visitors' orientation video.
- iv. Consider opportunities to expand the Community Advisory Panel membership by seeking some representation from a broader community area than currently defined and perhaps include local organizations such as environmental groups etc.
- v. Review Appendix 'A' of the CIAC Responsible Care Commitments Package and give consideration to any relevant enhancements to the facility Social Responsibility program, based upon the descriptive material therein.
- vi. In the document referred to as Continuous Improvement Cycle, similar to what is included for the 'Plan' section, define in the 'Do', 'Check', and 'Act' sections what is done to cover off the elements of each and how that is done (e.g., short business process description, list of procedures, key performance indicators, etc.).
- vii. In the biannual management system assessment process, address the implementation status of system elements as well as the existing check on their current existence.

## Successful Practices

The following relate to actions that strongly support sustained excellence in performance.

- i. The process in place for prioritizing maintenance work, referred to as Ranking Index for Maintenance Expenditures (RIME) that is based upon a multiplier of equipment criticality on a scale of one to ten and the defined maintenance work class (e.g., minor, corrective/improvements, predictive/preventive, breakdown, and health, safety and environment related).
- ii. The manufacturing process upset data base that is used to monitor and establish the root cause of any process excursions as they relate to the defined plant operating envelope.
- iii. The booklet entitled “Joffre LAO Plant Responsible Care Statement”, for distribution to stakeholders, which provides information on facility operations, its Responsible Care management system and performance.

# 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 INEOS Oligomers, Joffre LAO Plant 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 are committed to do the right thing, and be seen to do the right thing.*

*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, INEOS Oligomers, Joffre LAO Plant 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](http://www.canadianchemistry.ca)). INEOS Oligomers, Joffre LAO Plant 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](http://www.canadianchemistry.ca), or by CIAC at [glaurin@canadianchemistry.ca](mailto:glaurin@canadianchemistry.ca) or (613) 237-6215 extension 233.

## 1.2 About INEOS Oligomers, Joffre LAO Plant

INEOS is a global manufacturer of petrochemicals, specialty chemicals and oil products. It comprises 15 businesses each with a major chemical company heritage. Its production network spans 60 manufacturing facilities in 13 countries throughout the world. With global headquarters in Texas, USA, the INEOS Oligomers business produces a comprehensive range of specialty and intermediate chemicals derived from ethylene and butene. The Joffre Linear Alpha Olefins (LAO) manufacturing facility is located in Alberta on land leased from NOVA Chemicals. The area surrounding the plant is agricultural with the hamlet of Joffre located approximately 3 Km north of the site. LAO products are used in the production of polyethylene, synthetic motor oils, detergents, lubricant additives and drilling fluids. Products from the facility are transported by rail directly to customers and also to a bulk distribution terminal in Texas. More information on INEOS and its businesses can be found at [www.ineos.com](http://www.ineos.com).

## 1.3 About This Verification

The verification of INEOS Oligomers Joffre LAO Plant was conducted on April 03 and 04, 2012 and included a team visit to the Joffre manufacturing facility. During the course of the verification, the team had the opportunity to interact with a wide range of company personnel, as well as stakeholders external to the company. Attachment 2 contains a list of those individuals interviewed and their affiliations.

This is the fourth verification exercise completed for INEOS Oligomers, Joffre LAO Plant. The last verification was completed on June 22-24, 2009.

The verification team was comprised of the following individuals.

<b>Name</b>	<b>Affiliation</b>	<b>Representing</b>
Dave Mack	Consultant	<i>Team Leader</i>
Alec Robertson	Consultant	<i>Industry verifier</i>
Keith Purves	Public Stakeholder	<i>Public-At-Large Verifier</i>
Jim Robertson	Local Resident	<i>Community Representative</i>

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

During the verification of INEOS Oligomers, Joffre LAO Plant, 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, the team placed an emphasis on conducting a more in-depth examination of certain company aspects related to the Stewardship and Accountability Codes of Practice.

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 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 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 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 Operations Code defines environment, health and safety expectations regarding all company operational aspects including product manufacturing, transportation and distribution.

#### 2.1.1 Design and Construction of Facilities and Equipment

There is a well defined engineering project management process in place, which is referred to as the Capital Value Process (CVP). This addresses the *initiate, appraise, select, define, execute, operate* and *close* steps of project execution, and has an integrated management of change process to ensure that new unacceptable operational risks are not introduced into the facility.

Code expectations in this area are considered to be appropriately addressed.

### 2.1.2 Operations Activities

Various methods are used to routinely review facility operations for inherent hazards. These include periodic process hazard assessments, job task analyses and the maintenance of an overall facility hazard profile. Controls to address any identified hazards are built into work procedures as required. Operating procedures, to ensure that the product manufacturing process is run within a defined operating envelope, are formally documented and are on a three year review and update frequency. Maintenance work is done by qualified trades people with reference to vendor equipment manuals and selected job specific procedures. Standard procedures are in the process of being prepared for preventive maintenance work.

There is an on-site product quality control laboratory operated by a contracted service provider whose operations are fully integrated into all facility Responsible Care related programs. The contractor has a regional environment, health and safety advisor on staff who regularly visits the facility. There is a certified quality assurance /control program in place as are documented laboratory safety procedures. There is a slate of safety metrics in place specific to the laboratory.

Facility involvement in transportation operations covers such aspects as carrier scheduling, on-site rail movements, loading/unloading activities and tank car running maintenance. There are documented procedures in place to address on-site logistics risk management and practices. All carrier selection and performance monitoring with respect to CIAC Responsible Care code requirements are carried out by a corporate logistics function external to the facility. Facility personnel have limited knowledge of these selection and monitoring processes.

There are documented pressure envelope integrity and equipment reliability condition monitoring programs in place with a computerized system for scheduling inspection and preventive maintenance activities. There is a current activity on-going to document a full slate of standard preventive maintenance procedures. There is a very well developed formal process in place for prioritizing maintenance work, referred to as Ranking Index for Maintenance Expenditures (RIME). This process is based upon a multiplier of equipment criticality on a scale of one to ten with respect to the level of importance to the safety or profitability of the facility and the defined maintenance work class ranging from minor through corrective/improvements, predictive/preventive, breakdown, and health, safety and environment related work.

With the exception of the following Finding Requiring Action, code expectations in this area are considered to be appropriately addressed.

#### **Finding Requiring Action**

- i. Communicate related CIAC Responsible Care expectations to the company's corporate function, external to the facility, who have responsibility for the selection and monitoring of transportation carriers, and engage them in dialogue to ensure that their processes are in alignment with those expectations (code element OP12, 13 & 14).

#### **Successful Practice**

- i. The process in place for prioritizing maintenance work, referred to as Ranking Index for Maintenance Expenditures (RIME) that is based upon a multiplier of equipment criticality on a scale of one to ten and the defined maintenance work class (e.g., minor, corrective/improvements, predictive/preventive, breakdown, and health, safety and environment related).

### 2.1.3 Safety and Security

Processes used to evaluate workplace health and safety hazards include a task observation program which assesses selected jobs for potential hazards in real time throughout all stages of their execution, comprehensive pre-job hazard assessments for non-routine work, and on the job hazard assessments for routine work. An overall health and safety hazard assessment profile has also been completed for the facility that covers all work activities with the required controls identified. There are pre-employment medical examinations carried for all employees with mandatory biannual surveillance examinations for field employees and optional for others. Following an initial industrial hygiene assessment of the workplace, upon plant start up, ad hoc on-going exposure monitoring is done based upon any changes to work activity or the introduction of new chemicals to the facility. There is an arrangement with the Canadian Back Institute which guarantees a no wait appointment system to give immediate attention to employees who have suffered a back injury.

There is a documented process hazard analysis procedure in place which requires that, following an initial analysis at plant start-up, a revalidation shall be done every five years. The next revalidation is due in 2015. The worst case incident scenario for the facility has been defined. There is a documented process safety management program in place which is based upon the regulated occupational health and safety requirements currently in place in the U.S.A. A process safety management committee has been established which focuses on monitoring and addressing any variances related to operational activities. The facility also maintains a manufacturing process upset data base to monitor and establish the root cause of any process excursions as they relate to the defined plant operating envelope.

The facility has a comprehensively documented emergency preparedness and response plan in place which includes scenario specific response guidelines. Numerous emergency exercises are carried out annually on site, and every two years there is an off-site community exercise in collaboration with the local Lacombe County Mutual Aid Organization, of which the facility is a member. There is also a documented transportation emergency response program in place which is registered with Transport Canada. There are trained technical advisors on site who can respond to an emergency location, and both in house and contracted services are in place to address such things as product container transfers and clean up. Contracted services for incidents in the U.S.A. are managed by a corporate logistic entity external to the facility. Annual exercises are carried out on the plan.

A security vulnerability assessment has been carried out for the facility and all follow-up requirements have been implemented. There are documented security procedures in place and regular exercises are carried out.

In the case of large scale emergencies there are alternate locations from which facility business and product manufacturing processes can be managed. In extreme circumstances the plant can be immediately and safely shut down.

There is a documented incident reporting and investigation program in place. Key Responsible Care related subject matter experts and members of the facility environment health and safety committee have been trained in root cause analysis. A lesson learned data base is maintained which tracks and is used as a source of information to communicate learnings from internal and external incidents.

With the exception of the following Finding Requiring Action, code expectations in this area are considered to be appropriately addressed.

#### **Finding Requiring Action**

- i. Communicate related CIAC Responsible Care expectations to the company's corporate function, external to the facility, who has responsibility for transportation emergency operations in the U.S.A., and engage them in dialogue to ensure that their processes are in alignment with those expectations (code elements OP41 - 47).

#### **Successful Practice**

- i. The manufacturing process upset data base that is used to monitor and establish the root cause of any process excursions as they relate to the defined plant operating envelope.

#### **Improvement opportunity**

- i. Establish a workplace exposure profile that addresses all potential physical, chemical and environmental exposure hazards, and use this as the basis for on-going employee workplace exposure hazard monitoring.

### **2.1.4 Environmental Protection**

The facility's environmental program is registered and conforms to the International Organization for Standardization environmental management system standard (ISO14001:2004). All emissions and wastes have been characterized and quantified, and are reported as required to regulatory agencies and also to the CIAC National Emissions Reduction Program. There are no toxic emissions or waste from the facility. Opportunities to reduce emissions and waste are pursued as appropriate. Major waste disposal contractors are monitored for their Responsible Care related performance as are waste transporters. Smaller waste disposal facilities (e.g., battery recycling, etc.) are not being monitored for performance. There are no underground facilities or major spill potential on site, but ground water monitoring is being done to check for ingress of any contamination from outside the plant perimeter.

With the exception of the following Finding Requiring Action, code expectations in this area are considered to be appropriately addressed.

#### **Finding Requiring Action**

- i. Establish a program for the on-going monitoring of Responsible Care related performance of the facility's smaller contracted waste disposal facilities (e.g., recyclers, etc.) similar to that extended to major disposal sites (code element OP75).

#### **Improvement opportunity**

- i. Consider establishing an employee environment committee to focus on areas where enhancements may be made to current practices.

### **2.1.5 Resource Conservation**

Energy conservation is a prime focus of resource conservation. Energy use is tracked and opportunities to reduce same are pursued through manufacturing process optimization activities. A water conservation activity of note is the use of treated storm water runoff as cooling tower water make up. This reduces the amount of fresh water being drawn from the natural environment for this purpose.

Code expectations in this area are considered to be appropriately addressed.

### **2.1.6 Promotion of Responsible Care by Name**

The Responsible Care logo is displayed on the facility letterhead and the commitment is posted in the building entrance as well as the flag flying in the car park. Safety, health and environment results are reported on a document referred to as the Responsible Care Scorecard. Related performance under the umbrella of Responsible Care is regularly reported to the facility's Community Advisory Panel and

at semi-annual open houses. There is an employee Responsible Care training module provided to all new employees. Those employees with whom the verification team interfaced were aware of Responsible Care and able to articulate what it meant to them in their day to day work. The facility has produced a booklet entitled “Joffre LAO Plant Responsible Care Statement” which provides information on the operation, its Responsible Care management system and performance. This is available to all stakeholders.

Code expectations in this area are considered to be appropriately addressed.

#### **Successful Practice**

- i. The booklet entitled “Joffre LAO Plant Responsible Care Statement”, for distribution to stakeholders, which provides information on facility operations, its Responsible Care management system and performance.

#### **Improvement opportunities**

- i. Include Responsible Care information in the facility visitors’ orientation video.

## **2.2 Team Observations Concerning Stewardship Code**

The Stewardship Code addresses all company raw materials, products and services and defines expectations for the care and control of same throughout their life cycle.

### **2.2.1 Expectations of Companies**

There are no product research and development activities carried out by the facility. This is all carried out at the corporate business level of the company. Toxicological expertise also at the corporate level, external to the facility, regularly review the facility products for potential health risks and misuse and are actively involved with industry consortiums in this regard. Communication through the value chain is accomplished by the provision of material safety data sheets and regular interface with product users. There are no issues with respect to historical waste disposal practices, as this is a fairly new facility that has conformed to transportation of dangerous goods regulations and waste manifesting requirements.

Code expectations in this area are considered to be appropriately addressed.

### **2.2.2 Expectations with Respect to Other Parties**

There is a well developed process, managed by the facility, for the selection of suppliers and contract services with respect to CIAC Responsible Care code requirements. This includes an initial review of related aspects with selected follow-up audits prior to placement of contracts. A listing of approved contractors is maintained and reviewed annually based upon performance evaluations. There is, however, no formalized on-going performance review process for raw material and process chemical suppliers. Selection and performance monitoring with respect to CIAC Responsible Care code requirements for other entities such as bulk storage terminals, product container transloading operations, product swaps with other producers, and customers is managed by corporate entities external to the facility. Although there has been some local involvement in transloading facility audits, there is limited knowledge at the facility as to the selection and monitoring processes for those other entities.

With the exception of the following Findings Requiring Action, code expectations in this area are considered to be appropriately addressed.

### **Findings Requiring Action**

- i. Communicate related CIAC Responsible Care expectations to the company's corporate function(s), external to the facility, who have responsibility for the selection and monitoring of such entities as bulk storage terminals, product container transloading operations, product swaps with other producers, and customers, and engage them in dialogue to ensure that their processes are in alignment with those expectations (code elements ST 117 & 118).
- ii. Establish a process for the on-going performance monitoring of raw material and chemical suppliers with respect to Responsible Care expectations (code element ST 118).

## **2.3 Team Observations Concerning Accountability Code**

The Accountability Code defines expectations for communication and dialogue with communities local to company manufacturing and distribution operations and transportation corridors, as well as other stakeholders with an interest in company activities.

### **2.3.1 Operating Site Communities**

The facility participates in a local Community Advisory Panel whose membership includes local residents and adjacent industry representatives. The purpose of the panel is to ensure ongoing communication between all members and provide a forum for local community stakeholders to voice questions, comments or concerns. The Community Advisory Panel meets four times per year and there is an open house held twice per year. There is also a process in place to regularly make direct contact with all neighbours within the facility's defined community to provide site updates and information on shelter in place etc. A secondary group referred to as the Integrated Community Co-ordinators has been established to assist with community emergency communications. The facility's approach to Social Responsibility is primarily focused on providing financial support for community or charitable groups and organizations that in turn will offer volunteerism opportunities for employees. There is a charitable volunteer policy in place that affords employees paid time to volunteer at charitable events. Code expectations in this area are considered to be appropriately addressed.

### **Improvement opportunities**

- i. Consider opportunities to expand the Community Advisory Panel membership by seeking some representation from a broader community area than currently defined and perhaps include local organizations such as environmental groups etc.
- ii. Review Appendix 'A' of the CIAC Responsible Care Commitments Package and give consideration to any relevant enhancements to the facility Social Responsibility program, based upon the descriptive material therein.

### **2.3.2 Other Stakeholders**

The facility participates in the CIAC western leadership group and is very active in the regional TransCAER transportation outreach process. There is an update meeting held with local county officials once per year which also includes a facility tour. There are business ethics and code of conduct policies in place to guide employees in their interface with the business community.

Code expectations in this area are considered to be appropriately addressed.

### 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 INEOS Oligomers, Joffre LAO Plant 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:

#### 3.1 Observations on the PLAN Step

During the PLAN Step of the management system, the company decides what the goals of the company are and how they will be met. In determining those goals, it is expected the company will look inward, across its operations, but will also look outward, considering the expectations of: stakeholders; regulatory requirements; relevant CIAC Responsible Care Commitments and supporting tools; and other industry benchmarks.

In considering the PLAN Step of INEOS Oligomers, Joffre LAO Plant management system, the verification team observed the following:

The overall planning process consists of three main steps, namely Objective Setting, Capability Review and Measurable Indicators which respectively address such aspects as historical data, future requirements, changes in legislation, views of external stakeholders, resource availability and key performance indicators. Objectives and targets for the facility to achieve are recorded in a document referred to as the Annual Performance Contract, the expectations of which flow throughout the organization to performance objectives for groups and individual employees, following what is referred to as the Relay Process.

Code expectations in this area are considered to be appropriately addressed.

#### 3.2 Observations on the DO Step

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

In considering the DO Step of INEOS Oligomers, Joffre LAO Plant management system, the verification team observed the following:

Through a package referred to as the Continuous Improvement Cycle, the facility's Responsible Care management system and its components have been documented in terms of the plan-do-check-act cycle. A comprehensive Responsible Care Codes versus facility programs gap analysis reference document is in place, which describes the code elements and how they have been covered off or otherwise across the organization. Critical skills have been identified and resources have been assigned with clear responsibilities. Programs, practices and procedures have been established to execute the work of the facility including response to incidents and emergencies. Competency training is achieved through a computerized process referred to as Virtual Training Assistant Learner where training requirements for each position are identified. Individuals are required to complete the training made available for their positions and log its completion in the system.

Code expectations in this area are considered to be appropriately addressed.

**Improvement opportunity**

- i. In the document referred to as Continuous Improvement Cycle, similar to what is included for the 'Plan' section, define in the 'Do', 'Check', and 'Act' sections what is done to cover off the elements of each and how that is done (e.g., short business process description, list of procedures, key performance indicators, etc.)

### 3.3 Observations on the CHECK Step

During the CHECK Step in the management system, actions carried out in the DO Step are assessed to determine if they are actually being carried out according to plan, and whether they are achieving the desired outcomes and delivering continual improvement. Here, the overall management system and components will be reviewed along with employee competences for assigned responsibilities, internal and external audits will be undertaken, incidents will be assessed to identify root causes, and performance measurement will be conducted and reviewed.

In considering the Check Step of INEOS Oligomers, Joffre LAO Plant management system, the verification team observed the following:

Key performance indicators are routinely monitored for alignment with expectations using what is referred to as the Responsible Care Scorecard. An overall management system assessment is carried out every two years to ensure that all related processes are current and in place. This assessment, however, does not actually address the implementation status of system elements. The facility's environmental management system is audited regularly both internally and externally by the International Organization for Standardization to maintain its certification. Process safety management audits are carried out every five years with the next one planned for 2012. On-site safety and housekeeping inspections are regularly carried out as well as behaviour based safety observations. The incident investigation process previously described addresses requirements for root cause analysis.

Code expectations in this area are considered to be appropriately addressed.

**Improvement opportunity**

- i. In the biannual management system assessment process, address the implementation status of system elements as well as the existing check on their current existence.

### 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 or corrected, etc.

In considering the Act Step of INEOS Oligomers, Joffre LAO Plant management system, the verification team observed the following:

Reviews are undertaken to ensure continual improvement in the facility management system. All audit findings, incident remedial actions and the like are assigned to individuals and the status is tracked to completion using a well defined system referred to as TRACTION. There are processes in place to communicate

Responsible Care performance to stakeholders and there are processes in place to address employee and contractor performance.

Code expectations in this area are considered to be appropriately addressed.

## 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 is 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 INEOS Oligomers, Joffre LAO Plant 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 facility was seen to be guided by the *Responsible Care Ethic and Principles for Sustainability* in the following aspects:

- *Work for the improvement of people’s lives and the environment, while striving to do no harm.*  
The products produced at the facility are well researched chemicals with respect to their potential hazards which are well communicated to those who might be impacted. The production process is considered to be safe by design, and is well controlled.
- *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.*  
The facility has identified its community as local residents and adjacent industrial operations. There is an active community advisory panel in place with a broad range of membership interests. Semi-annual open house meetings are held twice per year.
- *Take preventive action to protect health and the environment.*  
There is a good safety record at the facility sustained by proactive hazard identification and work monitoring programs. A primary environmental focus is on energy reduction. Equipment integrity and reliability is ensured through a predictive and preventative maintenance program.
- *Innovate for safer products and processes that conserve resources and provide enhanced value.*  
There is continuous focus on improving energy efficiencies. Continually looking for new applications for the products manufactured to support sustainability and improve value.
- *Understand and meet expectations for social responsibility.*  
This is relatively well understood and practiced at the facility as appropriate. There is a focus on financial support to community initiatives and volunteering
- *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.*  
Facility personnel are actively involved with CIAC working groups and have regular interface with municipal officials.
- *Promote awareness of Responsible Care, and inspire others to commit to the principles.*  
Responsible Care is effectively communicated and promoted at the facility. Opportunities are taken as appropriate to promote the initiative externally.

Some weakness was observed in the following with respect to *Responsible Care Ethic and Principles for Sustainability*:

- *Engage with our business partners to ensure the stewardship and security of our products, services and raw materials throughout their life cycles.*

Although they appear to be generally practiced, there is a need to ensure that formalized processes are in place and consistently applied to ensure that Responsible Care related expectations are addressed in the selection and performance monitoring of all business partners.

## 5. VERIFICATION TEAM CONCLUSION

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

### COMPANY RESPONSE TO VERIFICATION TEAM REPORT

On behalf of INEOS Oligomers, Joffre LAO Plant I have reviewed this verification report. The observations and conclusions contained in the report have been discussed with the verification team.

INEOS Oligomers, Joffre LAO Plant 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.

Barry MacKenzie  
Site Director  
INEOS Canada Partnership  
April 12, 2012

## INTERVIEW LISTS

## A: Company Personnel

Name	Position	Location
Andy Nokes	Project Engineer	Joffre
Barry Mackenzie	Site Director	Joffre
Barry Miller	Maintenance/Project Engineering Manager	Joffre
Christina Buswell	SHEQ Coordinator	Houston
Chuck Obst	Environmental Specialist/ Responsible Care Coordinator	Joffre
Dale Verbeek	Senior Safety Advisor	Joffre
Fernando Azevedo	Maxxam EHS Advisor, Western Canada	Calgary
Gord Schiller	Logistics Supervisor	Joffre
Jeff Bezilny	Operations Engineer	Joffre
Kendall Kowalchuk	Procurement Manager	Joffre
Larry Courrone	Operations Training Coordinator	Joffre
Mark Deutscher	Reliability Engineer	Joffre
Marvin Trimble	Market Development Manager	Joffre
Rod Roy	Maxxam Lab Manager	Joffre

## B: External Stakeholders

Name	Company / Organization	Position	Location
Shawn Morton	Community Advisory Panel	Member	Joffre
Kathy Piper	Community Advisory Panel	Member	Joffre
Mike Forsyth	Community Advisory Panel	Member	Joffre