

Responsible Care® Verification Report

ERCO WORLDWIDE LP

MARCH 29 – MAY 19, 2022



**CHEMISTRY INDUSTRY
ASSOCIATION OF CANADA**



Responsible Care®
Our commitment to sustainability.

Disclaimer

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

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EXECUTIVE SUMMARY

This report documents the observations and conclusions of the independent verification team tasked with conducting a Canadian Responsible Care Verification of ERCO Worldwide LP (ERCO). The verification was undertaken with a virtual format for the Orientation and Planning meeting on March 29, 2022, and in person format to the corporate office in Mississauga, ON, on May 16, 2022, and the Saskatoon, SK, facility on May 18-19, 2022. This was the 9th Responsible Care verification completed for ERCO. The last verification was completed on May 22-23, 2019, at the corporate office in Etobicoke, ON and on May 30-31, 2019, in Grande Prairie, Alberta.

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. As the result of the team's investigations there were no Findings Requiring Action, six Opportunities for Improvement, two Successful Practices and one Work in Progress.

It is the consensus of the team that ERCO's management system for supporting the ethic of Responsible Care is exemplary and one of the best that the team has observed amongst its peers. As will be discussed later, the company reviews code implementation by each code and by each facility on a three-year cycle. The attestation process depends on confirmation that this code review is performed satisfactorily in addition to an annual visit by senior management (including the CEO) to every facility to discuss, in prescribed detail, performance, issues and future plans.

As this was ERCO's 9th verification, the team focused on performance, how the company validates the various code elements and addresses continuous improvement for its manufacturing and technical services.

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

Signed: 
Kris Lee
Verification co-Team Leader

Date: June 8, 2022

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 EXECUTIVE SUMMARY

Findings Requiring Action:

There were no Findings Requiring Action.

Work in Progress:

ERCO's work with the British Columbia Ministry of Environment to commission a third-party consultant to conduct a technical assessment aquatic study in the Burrard Inlet for the North Vancouver facility.

Improvement Opportunities:

Examine the effectiveness and robustness of the chloralkali customer/distributor MOC evaluation forms.

Examine the documentation section of Saskatoon's Friday inspections to ensure that the principle of Responsible Care under "to be seen" is included in its performance. As well the company should evaluate its performance against other workplaces and subject experts who promote "log and tag" as a best practice for emergency safety stations.

Explore various delivery methods to increase participation and quality of "advisory" outcomes of the Saskatoon CAP. This process should include metrics and ground proofing for continuous improvement. Where scheduling permits, schedule the CAP meetings with ERCC visits to validate performance of the CAP process.

Utilize CAP dialogue process to review the CEPA Environmental Emergency Regulations (E2) information and utilize it for the greater community so that the outcome of the review process contains updates, risk assessments and other outreach opportunities.

Continue to identify the key people with whom direct involvement by the company is appropriate, and inform and engage with them, specifically on company impacts with buffer zone policies.

Under the ERCO Sustainability Report:

Link sustainability to employee involvement.

Correlate the company Sustainability structure to CIAC's current (8 point) or any future structure and at a future date when it becomes available adopt the CIAC metrics for sustainability.

Successful Practices:

In the Saskatoon facility, effluent, process, storm and ground water are captured and returned to the plant for internal use. In addition, by recycling its usage, it has reduced its water consumption by 22,000 cubic meters in 2021.

ERCO's robust annual attestation process, comprising of ERCO Responsible Care Committee (ERCC) visits to all the sites where it operates as well as the very detailed RC Conformance review process, is a successful practice

INTRODUCTION

About Responsible Care Verification

As a member of the Chemistry Industry Association of Canada (CIAC), the most senior executive responsible for ERCO 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, ERCO 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). ERCO 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 jstevens@canadianchemistry.ca or (613) 237-6215 extension 227.

About ERCO Worldwide

ERCO Worldwide LP (ERCO) is a privately held Canadian based company. The ERCO head office and Research and Development laboratories are located in Mississauga, Ontario.

ERCO produces sodium chlorate, sodium chlorite and chlor-alkali products. The sodium chlorate is used mainly to make chlorine dioxide for the bleaching of pulp. The sodium chlorite is mainly used in water treatment. The company also designs and licenses large-scale, proprietary chlorine dioxide generators. Those are used to produce chlorine dioxide at pulp mills for the elemental chlorine-free (ECF) bleaching process.

The chlor-alkali business serves a variety of industries including municipal and industrial water treatment, food processing, fertilizers, agricultural intermediates and oil and gas. The company employs approximately 570 employees worldwide and operates nine manufacturing facilities, six of which are located in Canada, two in the United States and one in Chile.

Since the last verification there have been changes outlined below.

- Ownership was acquired by Birch Hill Equity Partners Management Inc. in 2021 from Superior Plus.
- In May 2022 ERCO announced that it was ceasing operations of its sodium chlorate plant in Grande Prairie as of Q3.
- The former ERCO property in Thunder Bay, which was decommissioned and capped, has been returned to the local Fort Williams First Nations.
- The Saskatoon sodium chlorate plant was closed in 2019 creating a reduction in staffing.
- The corporate office moved from Etobicoke to Mississauga, Ontario in 2021 but due to COVID19 the employees have worked from home and have not fully moved into the new head office as of the time of this report.

About This Verification

The present verification covers only the Canadian operations. The company is a member of the Chemistry Industry Association of Canada (CIAC) and manages its business with the Responsible Care®

approach. The company is also a member of the Responsible Care® governing bodies in the United States and Chile and the respective locations are certified or verified by those associations. The previous verification was conducted between May 22 and May 31, 2019, at the corporate office in Etobicoke, ON and Grande Prairie, Alberta facility.

The team met virtually on March 29, 2022, for the Orientation and Planning meeting reviewing the management system for each of the three Responsible Care codes and completion of action items from the previous report. The main verification site visits included one day of interviews at the head office May 16, 2022, with executives, senior managers and subject matter experts in Mississauga and two days at the Saskatoon, Saskatchewan facility May 18-19, 2022, with the plant manager, department managers, subject matter experts, Occupational Health, and Safety Committee (OHS) members, employees, and the local CAP.

As this was the 9th verification for ERCO and as the previous verifications were very successful, the team shifted the standard code focused approach to a focus on performance. The interviewees were requested to make a brief presentation covering topics listed below to illustrate how their performance meets the principles of Responsible Care.

The team concluded that the management systems to support the Ethic and Principles of Responsible Care were well entrenched and understood across the company both at the corporate office and Saskatoon plant.

The team reviewed the Responsible Care Operations, Stewardship and Accountability Codes and asked participants to cover the topics listed below:

- Key Performance Indicators (KPI's) for the topic areas related to Responsible Care, and/or other topics of significance
- Area changes in the last three years and reason for change.
- Area incidents in the last three years, cause and remediation.
- Major areas of concern or largest challenge with an accompanying explanation.
- Providing examples, how has each department area integrated the company commitments to Principles for Sustainability.

The team reserved the right to perform code deep drills should the need have arisen. The company was consulted on this approach and was amenable to its use.

The Verification Team was composed of the following individuals.

Name	Affiliation	Representing
Gerry Whitcombe	CIAC	<i>Industry</i>
Larry Masaro	CIAC	<i>Industry</i>
Kris Lee	CIAC	<i>Public at Large</i>
Om Kochar	Saskatoon, SK	<i>Local Community</i>

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

As opposed to code implementation, as in previous years, the Operations, Stewardship and Accountability code sections were reviewed with respect to management system implementation and overall performance.

TEAM OBSERVATIONS CONCERNING OPERATIONS CODE

Design and Construction of Facilities and Equipment

ERCO Engineering is one component of a multi departmental group that designs and specifies the technical aspects of Chlorine Dioxide (ClO₂) generators that are marketed worldwide. Further information is covered under the Product Stewardship section.

Operations Activities

Business Continuity

Due to an experienced workforce who is on the cusp of retirement, it was deemed necessary by the company to prepare for knowledge transfer in the coming years. September 2021 ERCO launched a yearlong Leadership Pathways Program with 15 participants who were selected to complete a series of leadership assessments to better understand their strengths and developmental needs. The data from the program is reviewed quarterly with each plant and function and updated as new staff are onboarded and as the current staff depart.

Occupational Health and Safety

This area was covered. The company meets Responsible Care requirements.

Emergency Management (Saskatoon site)

This area was covered. The company meets the Responsible Care requirements.

Safety and Security

In Saskatoon, ERCO conducts a very thorough weekly Friday inspection of its emergency safety stations, of fire extinguishers, safety shower/eye wash stations, windsock and diphoterene. The log sheets are filed, and potential issues reported. According to ANSI Z387.1 (safety shower/eye wash equipment) and NFPA 10 (fire extinguishers) they have to be inspected and documented. The definition of "documented" is at the discretion of the company.

As per the ethic of Responsible Care, companies are to "do the right thing and be seen to do the right thing". With respect to the Friday inspections, the company does the former very well, but the latter "seen" is missing. This visibility is important for those who visit the company whether it be verifiers, auditors, inspectors, contractors, members of their CAP on a tour of the plant etc. "Log and Tag" to include visibility is one of the options for best practice found in other workplaces and promoted by best practices expertise.

Improvement Opportunity

Examine the documentation section of its Friday inspections to ensure that the principle of Responsible Care under "to be seen" is included in its performance. As well the company should evaluate its performance against other workplaces and subject experts who promote "log and tag" as a best practice for emergency safety stations.

The Emergency Response Plan outlines 17 CEPA scenarios as per E2 Regulations. The company is actively involved with TransCAER and the Chlorine Institute for outreach training. The site hosts the Saskatoon Fire Department Haz-Mat and Technical Rescue teams throughout the year for training needs. All employees are required to participate in at least one event annually. The training is tracked for each employee and the simulations are uploaded to an ERCO SharePoint site.

Environmental Protection

The plant is located along the Saskatchewan River in an industrial neighbourhood. An environmental annual site plan is developed based on Strengths, Weaknesses, Opportunities, Threats (SWOT) analysis outcomes relevant to environment and companywide site environmental objectives. During the tour of the plant the verifiers did not experience exposure to any chemical odours, even though the team toured the company's enclosed loading/off-loading facility during tank car loading, as well as an extensive visit to the chlorine (and caustic and HCl) manufacturing facility. Engineering controls were found to be very effective in minimizing exposure. Gas leak alarms are located in strategic areas.

There is no offsite release of water effluents. Surface water and any potential leaching from groundwater are collected into trenches and ponds and recycled back to the plant. Of note, the verification team viewed a high level of housekeeping in the plant while on their tour. The company has submitted its E2 application to Environment Canada and Climate Change. Currently the company is developing its communication information as per E2 Regulation.

There is an opportunity to include the CAP in the development of communication information to the greater community. Adhering to only E2 requirements does not necessarily meet the intent of Responsible Care which requires continuous interface with the community. There is potential for the CAP to be an advisory body regarding what level of detail and what format would best serve aspects of community awareness and emergency response (CAER). In addition, under Responsible Care, risk communication requires annual review and delivery to those neighbours who could be impacted.

For the North Vancouver plant, the company is working with the British Columbia Ministry of Environment in response to their request for information regarding the permitted discharge to the Burrard Inlet. ERCO is in the process of commissioning a third-party consultant to conduct a technical assessment aquatic study. The study will apply the new water quality objectives for the Burrard Inlet, and the BC Water Quality Guidelines to determine the site's new effluent permit limits.

The team considers this project a work in progress.

Work in Progress:

ERCO's work with the BC Ministry of Environment to commission a third-party consultant to conduct a technical assessment aquatic study in the Burrard Inlet of the North Vancouver facility.

Improvement Opportunities:

Utilize CAP dialogue process to review the CEPA Environmental Emergency Regulations (E2) information and utilize it for the greater community so that the outcome of the review process contains updates, risk assessments and other outreach opportunities.

Successful Practices (Saskatoon):

In the Saskatoon facility, effluent, process, storm and ground water are captured and returned to the plant for internal use. In addition, by recycling its usage it has reduced its water consumption by 22,000 cubic metres in 2021.

Resource Conservation

Effluent, process, storm and ground water are returned to the plant for internal use. The Saskatoon plant is currently eliminating R-22 refrigerant which is harmful to the environment and replacing it with a high efficiency ammonia-based system.

The plant has also reduced its power consumption with the installation of LED lighting and installing Variable Frequency Drives (VFD's) on electric motors. A new air compressor with a VFD was installed, further reducing the power load. Engineering is conducting a power study to identify and eliminate underloaded transformers.

Promotion of Responsible Care by Name

This section was covered, and the company meets the CIAC commitments.

TEAM OBSERVATIONS CONCERNING STEWARDSHIP CODE

The team focused its Stewardship Code interviews on the marketing of Chlorine Dioxide (ClO₂) generators. All Operations Code activities are conducted in conformance with Responsible Care requirements, ERCO design standards and ISO 9001 registered. The company has sold approximately 150 generators worldwide with one currently under development. ClO₂ projects are designed and built to ERCO's standards, or higher where applicable outside Canada. e.g., EU standards for Metsä Fibre, Finland. Their association with University of Toronto Engineering School has created an opportunity for leading edge ClO₂ research.

The Operations Code covers, for example, engineering, operational support, training, gap analysis and safety studies. Services provided under the Stewardship Code include supporting/commissioning of projects, operations support/troubleshooting, training, safety interlock checks, process optimization and bleach plant operations.

All post construction activities involving ERCO are governed by Stewardship Code considerations (built into the contract documents) and include, in addition to those described above, MOC (management of change) reviews, Product Stewardship reviews, shutdown inspections, performance audits, PHA (process hazard analysis) revalidations and OEM (original equipment manufacturer) Spare Parts (for reliability and safety).

The team finds that all aspects of the marketing of ClO₂ technology meet the requirements of Responsible Care.

Research and Development (R&D) Expectations

Expectations Beyond R&D

See section below for risk characterization of raw materials, suppliers, and distribution of products.

Communication Through the Value Chain

ERCO categorizes its customers as those who are members of the Chlorine Institute and non-members in its customer application and review process when vetting those customers. The company has established changes under its Corporate Social Responsibility and Sustainability (CSR/Sustainability) in how it relates to its suppliers and customers.

For example, for its contractual expectations throughout the value chain the company has a supplier sustainability baseline for 2022. The 7 supplier sustainability elements for 2023 are Health & Safety, ethics, Corporate Social Responsibility, Environment, Climate Change, Quality/Equity, Diversity/Inclusion and ERCO Code of Supplier Conduct for raw materials & contractors.

Customer & Distributor Product Stewardship Reviews are summarized under the quarterly Supply Chain Opportunity Reporting (SCOR) system. This SharePoint application allows them to enter, track and address all issues related to procurement of raw materials and distribution of products. The results are incorporated to senior management and Quarterly Business Review (QBR)

Expectations of Companies with Respect to Other Parties

The company has a new process for evaluating customers to ensure the safe handling of their products. The MOC evaluation forms for chloralkali customers may need to be updated to ensure a more robust evaluation that satisfies ERCO's due diligence requirements.

Improvement Opportunities:

Examine the effectiveness and robustness of the chloralkali customer/distributor MOC evaluation forms.

TEAM OBSERVATIONS CONCERNING ACCOUNTABILITY CODE

The Saskatoon facility applies the Principles of Responsible Care in terms of being accountable and responsive, working with stakeholders for public policy and standards that enhance sustainability.

The verification team met with the local CAP comprised of three Responsible Care companies, ERCO (CIAC), BASF (CIAC) and Nouryon (ACC), and community members led by an external facilitator. The consensus from the panel confirmed that ERCO is very responsive and open in answering all questions posed by the group. However, they expressed an interest in exploring a change towards functioning as an advisory group rather than a group largely receiving information.

The company is very fortunate to have the potential interest from its CAP members to enhance their participation and knowledge. The team is optimistic that the facilitator and the three Responsible Care companies can invigorate delivery of the sessions. This will require effort. For example, reviewing sections from the Responsible Care Commitments green book, developing opportunities to advise companies on emergency information to the general public (see above Environment and E2), using SWOT exercises at appropriate/relevant levels, changing some meeting formats to workshops, where feasible schedule the ERCC visits with CAP meeting dates to coincide with ERCC Conformance Review. It

is important to emphasize that the company would consider the advice from the CAP members, but the ultimate decision whether to incorporate the advice is the prerogative of the company.

Improvement Opportunities:

Explore various delivery methods to increase participation and quality of "advisory" outcomes. This process should include metrics and ground proofing for continuous improvement.

Where feasible schedule the CAP meetings with ERCC visits to validate performance of the CAP process.

Operating Site Communities

An annual review process for *Stakeholder Analysis - CAP Member Identification* tool includes a *Stake Holder Want/Needs* plot matrix: Manage Closely/Keep Satisfied, Monitor/Keep Informed. This process generates a list of 45 stakeholder groups into priority areas according to a worst-case scenario 3 circle map. In addition, the company has specific annual actionable goals, key results expected, timeline and resources required, such as open houses, community support.

Other Stakeholders

As part of the Responsible Care commitment (AC137,138), member companies are required to engage with elected and appointed officials at the local, regional, provincial, and federal level who have responsibility for public policy relevant to the company. ERCO has presented to the local municipal officials its concerns on rezoning within the city of Saskatoon. Encroachment of residential neighbourhoods in close proximity to ERCO creates a higher level of scrutiny on emergency management for the industry as well as the city. The team supports the company's commitment in this area.

Improvement Opportunities:

Continue to identify the key people with whom direct involvement by the company is appropriate, and inform and engage with them, specifically on company impacts with buffer zone policies.

APPENDICES TO CODES: INVOLVEMENT IN PUBLIC POLICY PROCESS

In addition to the Accountability Codes, this appendix outlines the involvement in Public Policy Process and its importance in enabling companies to meet expectations of the Operations and Stewardship Codes. Involvement in municipal planning process is considered key to meeting "buffer zone" expectations for all three codes. See Other Stakeholders above.

TEAM OBSERVATIONS ON THE COMPANY MANAGEMENT SYSTEM

The team observed the management system for the Company at the corporate office and for the operations at the Saskatoon, Saskatchewan facility.

The management system has evolved by utilizing years of experience through corporate EH&S, R&D, Engineering and Technical Services which has been enhanced by the adoption of the principles of Responsible Care. The ERCO Management System applies to the global manufacture and supply of chemicals for the chlor-alkali industry and technical design/support for chlorine dioxide generators and their components via agreements with those clients.

For its own sites the ERCO Responsible Care Committee (ERCC) operates through a comprehensive Plan, Do, Check, Act process at the corporate level which cascades to each of its facilities in Canada (CIAC), US (ACC) and Chile (ASIQUM). Company-Wide and site-specific objectives are referred to when developing departmental and personal goals and objectives to ensure alignment throughout the organization. The Company-Wide and site-specific Objectives are posted on the walls of every ERCO location and made available on the company intranet.

Housed in the ERCO Document Management System (ESDMS) are Responsible Care related policies and procedures, for example, in HS&E Manuals, Process Safety etc. To clearly identify those which fall under Responsible Care commitments, the company has created a Responsible Care Manual parallel to its other operating manuals.

The company's Responsible Care management system may well be the best ever reviewed by members of this team. As will be discussed later, there are two features which enable the team to make this distinction. Firstly, the company Responsible Care coordinator facilitates the review of code implementation by each code and by each facility or function on a three-year cycle, referred to as the RC Conformance Assessment. Secondly, the ERCO Responsible Care Committee (ERCC) is a leadership review and annual visit (chaired by the CEO) of every facility to discuss, in detail, performance, issues and future plans.

Successful Practices:

ERCO's robust annual attestation process, composed of ERCO Responsible Care Committee (ERCC) visits to all the sites where it operates as well as the very detailed RC Conformance review process is a successful practice.

Observations on the PLAN Step

Annually in October, the Company-Wide Objectives are identified and drafted as part of the Business Review Process. Plant Managers and Department leaders develop site-specific objectives that are aligned with the Company-Wide Objectives.

"Goals and Objectives Development Companion Document" located in the Responsible Care Communication and Training Library is used to describe the process to complete site goals and objectives under the umbrella of Responsible Care.

1. Completion is comprised of the following action items:
Reviewing previous year's actions for completion and effectiveness.
2. Conducting a SWOT Analysis related to internal and external focus areas. Ranking of each of the items listed for the individual sections of the SWOT using Risk vs Reward ranking matrix.
3. Conducting a Stakeholder Analysis using a comprehensive set of questions for stakeholder wants and needs.
4. Developing and managing actions by identifying highly ranked items from SWOT and ensuring those actions are Specific Measurable, Attainable, Realistic and Timely.

Observations on the DO Step

The actions from Step 4 (above) lead to the development of KPIs (Key Performance Indicators) which are used to monitor progress towards Company, Site, Function and Personal goals. Major activity for the

coming year for the company is decided in this way. These objectives, goals and plans form the basis of the annual ERCC reviews each year. (Examples of KPI actions are included in Operations and Stewardship performance activities)

Observations on the CHECK Step

The ERCC team visits each facility annually to check for completion of expectations. Validation is conducted by experts who, along with audit reviews, can validate performance for the annual CIAC Responsible Care attestation.

The RC Conformance Review is the same for external technical services projects, with the limitation that in 3rd party projects ERCC has a consulting role as it does not own the equipment or manage the facility. Contracts between ERCC and its customers guide the roles and responsibilities. The company's long-standing role in global projects underscores the constructive relationship it has developed in performance and expertise.

The team found that the ERCC Compliance Review and the Responsible Care Coordinator's code compliance review processes were excellent. In combination they form the backbone of the CEO's annual attestation regarding the state of the implementation of Responsible Care. In the former, the CEO and senior management are involved with each site visit where all components of the management system are reviewed opposite past and future KPIs, incidents, changes, and general performance (among other topics). This review is unusually complete. Taking this and the code compliance review outcome (see below) into consideration the CEO then attests (or not) to the state of Responsible Care implementation.

The RC Coordinator's code compliance review is also unusually complete and thorough. Each code element has a 'champion' whose responsibility is to ensure that the code continues to be sufficiently implemented where appropriate. Each facility is required to keep its current implementation details (for each code) updated in the Coordinator's database (SharePoint listing). As a result, not only is the current status known but the implementation details for each facility/function are also available. The ability for every practitioner to informally leverage implementation details is an enormous advantage for the company.

Observations on the ACT Step

Based on the outcomes from the CHECK stage, annual objectives are incorporated and modified by the ERCC for continuous improvement.

The annual attestation to CIAC about the state of Responsible Care within ERCC is only done when both the ERCC review and the Code Compliance review have been satisfactorily completed.

Successful Practices:

ERCC's robust annual attestation process, comprising of ERCC Responsible Care Committee (ERCC) visits to all the sites where it operates as well as the very detailed RC Conformance review process, is a successful practice.

TEAM OBSERVATIONS ON THE RESPONSIBLE CARE ETHIC AND PRINCIPLES FOR SUSTAINABILITY

Sustainability Report

The company showed the team an early release of their internal Sustainability Report. This version was meant for employees only and is an inaugural step in ERCO's sustainability journey. In general, the report was comprehensive and easily read.

Comments: (It is understood that this is an early version)

- Audience was not clear (seemed to be a mixture of externally and internally directed content)
- There is an opportunity to link sustainability to employee involvement
- There is an opportunity to correlate the company Sustainability structure to CIAC's current (8 point) or any future structure. (As verifiers and others use CIAC guidance for understanding the Chemistry Industry Association of Canada's direction and progress in sustainability – it would facilitate the process if ERCO's internal structure and the CIAC's structure were aligned)
- The CIAC has yet to adopt metrics for sustainability but when it has, ERCO should adopt the same metrics to measure their efforts in sustainability.

Improvement Opportunity

- Link sustainability to employee involvement
- Correlate the company Sustainability structure to CIAC's current (8 point) or any future structure and at a future date when it becomes available adopt the CIAC metrics for sustainability.

Responsible Care Ethic and Principles of Sustainability

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

The team believes that ERCO's ERCC (ERCO Responsible Care Committee) lays the foundation for the improvement of people's lives and the environment while striving to do no harm. The ERCC has its senior management including the CEO visit each site annually where a review of all aspects of the operation are performed. This practice ensures all employees are accountable for their actions, that the facility is safe, and that the community is protected. The ERCC drives continual improvement and ensures the Responsible Care ethic is alive and well.

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:

ERCO has a 3-industry member functioning CAP in Saskatoon that meets monthly and does other various activities with local neighbours and first responders. The CAP indicated that ERCO has been very open and forthcoming on any questions they are asked and is always available on request. The plant opens its doors to community groups for tours and communicates risk with company brochures and other literature.

TAKE PREVENTATIVE ACTION TO PROTECT HEALTH AND THE ENVIRONMENT:

ERCO has two senior management committees, one for Health and Safety and the second for the Environment. In both cases the company tracks Leading and Lagging indicators. Leading indicators

include employees reporting near misses, management and employees completing Job Hazard Analysis (JHA) and ensuring ample facetime with all employees in regard to EH&S. The company calls these initiatives safety energy. This data is then easily analyzed, and where needed, investigated with the intent of prevention. The team experienced no fugitive emissions during the tour of the plant.

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

ERCO's water conservation at the Saskatoon plant reduces water consumption and protects the environment. Their work in Process Safety Management (PSM) is excellent and ensures that their processes and products are safe. They extensively practice management of change process and are regularly recalculating the zone of impact in their communities. Operators and management review Standard Operating Procedures (SOP's) with rigour annually. Any new product or process undergoes an all-inclusive PSM review using Process Hazard Analysis (PHA's) and other resources to ensure these processes and products are safe. Their association with University of Toronto Engineering School has created an opportunity for leading edge ClO₂ research.

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

ERCO engages with their business partners (suppliers, contractors, customers, community, etc.) by scheduled performance audits of each of its business partners. Both suppliers and carriers are audited to ensure that the shipment of raw materials into their plants are performed at a high standard (no spills/no incidents). Transportation Carriers are reviewed to ensure that their equipment is in excellent condition and equipped to handle ERCO products and that drivers are trained in the transport and handling of products. ERCO also reviews routes for risk and limits the involvement of the community in their assessments. Their rail transport is excellent as evidenced by their awards for safe transportation of rail by the major railroads in North America.

UNDERSTAND AND MEET EXPECTATIONS FOR SOCIAL RESPONSIBILITY:

ERCO is involved in the United Way at their head office and all plant sites. All charitable donations by employees are matched by ERCO. The Saskatoon plant sponsors local sports teams and other municipal functions. Their sustainability plan in their report explores all aspects of social responsibility including diversity, equity and inclusion. ERCO also tracks their community engagement recording community concerns and outreach events.

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's Saskatoon facility has identified three impact zones within which an analysis is done to identify stakeholders. They then place each of the stakeholders in a matrix that places the level of engagement as follows: 1. Manage Closely, 2. Keep Satisfied, 3. Keep Informed, 4. Monitor. This is unique and works well for the Saskatoon plant. Where necessary, ERCO connects with local municipalities to review zoning and other policies that could impact operations.

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

ERCO promotes Responsible Care with their suppliers, contractors and customers evidenced by their Responsible Care language in all contracts. Responsible Care logo is found on letterhead, business cards, plant signage at entrances and on large structures (eg: storage tank). ERCO delivers information to neighbours informing them of Responsible Care. Their work with local first responders also promotes the ethic and principles of Responsible Care.

VERIFICATION TEAM CONCLUSION

As a result of the examination conducted and 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. This verification has been completed and no further involvement is required by the verification team.

APPENDIX 1: COMPANY RESPONSE TO VERIFICATION REPORT

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

ERCO was very impressed with the level of experience and engagement shown by the verification team. As a founding member of Responsible Care and an active member of CIAC, we truly appreciate the opportunity for continuous improvement that the verification process has provided. We value the transparent and collaborative approach that the verification team took in the preparation, execution and report writing process.

ERCO Worldwide will communicate the results of the verification exercise with its CIAC peers at their next Leadership Group meeting, and will discuss the verification results with our stakeholders, including those representing communities near our operating sites. We will consider the Work in Progress and Improvement Opportunities identified by the verification team and will assist the CIAC in communicating and sharing the identified Successful Practices to other CIAC members.

Emily Fattore

Sr. Director, HS&E, and Responsible Care Coordinator

APPENDIX 2: INTERVIEW LISTS

A: Company Personnel Contacted During Verification Process

NAME	POSITION	LOCATION
Ed Bechberger	President & CEO	Mississauga Head Office
John Christie	VP, Operations	Mississauga Head Office
Chris Cowan	VP, Human Resources	Mississauga Head Office - Virtual
Tom Barrett	VP, Sales & Marketing	Mississauga Head Office - Virtual
Rich McLellan	VP, Finance	Mississauga Head Office- Virtual
Emily Fattore	Sr. Director, HS&E	Mississauga Head Office & SK
Rimple Arunagiri	Regulatory/ Logistics Compliance Analyst	Mississauga Head Office- Virtual
Neha Narang	Manager, Customer Service	Mississauga Head Office- Virtual
Blake Bodiam	Manager, Technical Services	Mississauga Head Office- Virtual
Dave Dean	Director, Engineering	Mississauga Head Office- Virtual
Vince Ciufu	Director, Transportation	Mississauga Head Office- Virtual
Sharif Cook	Manager, ERCO Chlorine Dioxide Technology	Mississauga Head Office- Virtual
Prashant Rajurkar	Manager, Environmental Affairs	Mississauga Head Office- Virtual
Don Smiegielski	Director, Health & Safety	Mississauga Head Office- Virtual
Jason Mayo	Sr. Manager, Health & Safety	Mississauga Head Office- Virtual
Terry Friske	Plant Manager	Saskatoon Plant
Samantha Dearing	HS&E Analyst	Saskatoon Plant
Janet Maier-Denis	Safety Manager	Saskatoon Plant
Salil Tendulkar	Technical & Environmental Manager	Saskatoon Plant
Jonathan Friesen	Maintenance Manager	Saskatoon Plant
Jory Nakoneshny	Process Engineer	Saskatoon Plant
Kyle Olson	Senior Process Engineer	Saskatoon Plant
Lee Hamilton	Loading/ER Supervisor	Saskatoon Plant
Cullen Wilhelm	Process Operator	Saskatoon Plant
Renee Boudreau	Process Operator	Saskatoon Plant
Blair Miskolczi	Process Operator	Saskatoon Plant
Chris Quinney	Maintenance Instrumentation Tech	Saskatoon Plant

B: External Stakeholders Contacted During Verification Process

NAME	POSITION	LOCATION
Kelly Greenwood	BASF	Saskatoon
Barry Jackson	Nouryon	Saskatoon
Jim Brayshaw	CAP Facilitator	Saskatoon
Erin Field	Resident	Saskatoon
Preston Karoly	WBM	Saskatoon
Cary Tarasoff	Mid-west Development Corp	Saskatoon
Jim Harding	ClearTech Chemicals	Saskatoon
Sean Reynolds	Crestline	Saskatoon



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