## 2019 SUSTAINABILITY REPORT

Algoma Central Corporation



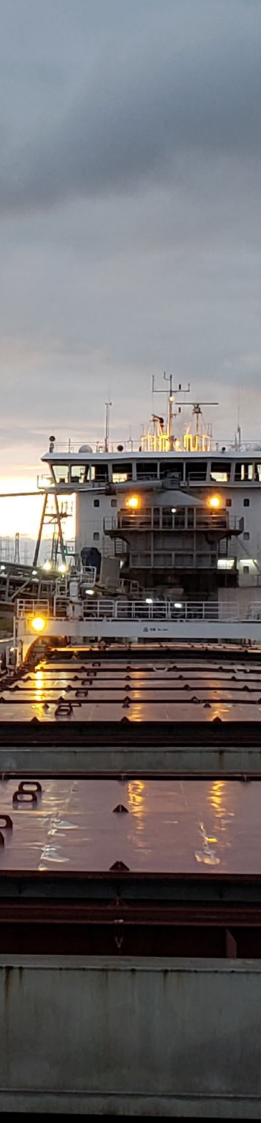
Your Marine Carrier of Choice

ALGOMA INNOVATOR TORONTO IMO 9773375

REAL

### **About This Report**

Algoma has published a report on its sustainability performance bi-annually since 2011, with the last update provided in 2017. This report summarizes our management approach and performance on environmental, safety and social issues and indicators for the 2018/2019 period. The contents of the report were guided by the Global Reporting Initiative (GRI) Sustainability Reporting Standards.



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# Highlights



**GHGs** (Since 2009, Tonne-km basis, Domestic Dry-bulk Fleet) \$500м

Invested in Fleet Renewal (to date) **39%** Efficiency Improvement

Equinox Class Vessels



Closed Loop Exhaust Gas Scrubbers



Green Marine Score

» Top 10% of shipowner participants



### Whale Observations

Provided to ROMM/Marine Mammal Observation Network

# 15% Lost Time Injuries



27

Vessels with Zero Lost Time Injuries in 2019



\$3M+ Invested in

Shipboard Training (2019)

# **27**

Female Employees & Cadets Sponsored

To attend the Women on the Water Conference 2018/2019



### \$526K in Scholarships

Provided to children of Algoma Employees as of 2019





Events coordinated by the Community Involvement Committee in 2018/2019

# Message From Our President & CEO



I am pleased to introduce our latest report on sustainability at Algoma. We've experienced many exciting changes since our last sustainability update, including taking delivery of three new vessels, purchasing five additional vessels and expanding our global partnership in short sea shipping. We also launched a new vision, to be the Marine Carrier of Choice, and named Sustainability as one of our core values. Highlighting sustainability in this way reflects its importance to the company and our employees. In a recent survey, almost 95% of our employees agreed that sustainability is important to Algoma's success and I couldn't agree more.

Safety is our highest priority and a fundamental part of our operations and culture. We've been successful in reducing the number of crew personal injuries by over 50% compared to ten years ago. I am however incredibly sad to report that one of our crew members suffered a fatal injury in 2018. Events such as this are devastating to me and to all of our employees and we offer our sincerest condolences to the family and friends of this crew member. This tragedy reminds us that we must be constantly vigilant in caring for our safety and in working to improve our safety culture – it is something we will not relent on.

In a world with a changing climate, we recognize that we need to do our part to reduce our carbon emissions. In the last two years we have taken delivery of three more new Equinox Class lakes vessels that will contribute to reducing our emissions, and we continue to make efficiency improvements throughout the fleet. We are also making progress in our efforts to reduce our footprint, in part through technological innovations. Algoma was at the forefront in the use of closed loop exhaust gas scrubbers to reduce sulphur emissions, and we now operate this equipment on eight vessels. An important issue that I introduced in our last report and that we continue to face is the lack of qualified seafarers to crew our domestic fleet. Much of the current marine workforce in Canada is nearing retirement and there are not enough trained and experienced crew to fill the gap. In addition to our own efforts, we are working with government and others in the industry to raise awareness of the issue and support the overall growth of the marine sector. However, there is still more to do. The message needs to get out to the younger generation – this is a vibrant and dynamic industry with stable and enriching employment opportunities.

Last but not least, I want to recognize our new Community Involvement Committee and all of our employees - through their collective efforts we were awarded the Niagara United Way's 2018 Committee of the Year Award and 2019 Campaign of the Year Award, demonstrating how much our employees care about others and their communities.

In 2019 Algoma celebrated its 120th anniversary, a significant milestone in our history. We are proud to provide a great place to work for our many employees and look forward to continuing to support our customers, industry and society with sustainable essential transportation services for many years to come.

MaRuhl

Gregg Ruhl

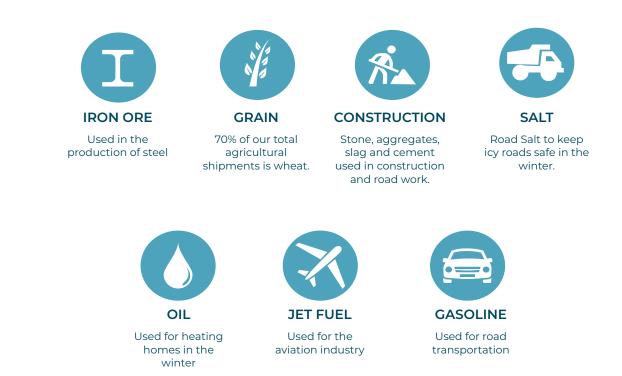
# Welcome Aboard Our Company

Algoma Central Corporation is a leading Canadian marine shipping company with headquarters in St. Catharines, Ontario. We own and operate the largest fleet of self-unloading and gearless drybulk carriers and product tanker vessels operating in the Great Lakes – St. Lawrence waterway.

Algoma also owns and operates, through international subsidiaries, self-unloading ocean-going vessels operating in international markets, and has a 50% interest in NovaAlgoma, a diversified fleet of dry-bulk, cement carrier and short-sea vessels serving customers around the world.

Our vessels carry bulk cargoes of raw materials such as iron ore, grain, salt, cement, coal, aggregates and petroleum products and we do this safely, reliably and efficiently. Marine transportation is recognized globally as the most environmentally efficient way of moving cargo.

What we carry is more than just cargo; we carry essential goods that will become a part of our everyday lives. We transport cargo that feeds us, keeps our roads safe, helps build our communities and moves us forward.



### Facts & Figures Recent Highlights

Algoma has been renewing its domestic Canadian fleet over the last decade, taking delivery of eight new Equinox Class dry-bulk lakes vessels to date, with additional vessels under construction. Our company has also experienced several changes since the last sustainability update, including:

- Purchasing two product tankers to join our domestic fleet
- Bringing three joint venture cement carriers into domestic service to service customers in the Great Lakes - St. Lawrence region
- Purchasing three ocean self-unloaders, bringing our wholly owned ocean fleet to eight
- » Installing our first ballast water treatment system on the ocean self-unloader Algoma Integrity
- » Completing our first exhaust gas scrubber retrofit in early 2020 on the Algoma Mariner

### **Our History**

Algoma Central Corporation has a rich history, dating back to 1899 in Sault Ste. Marie, Ontario, where the company started as the Algoma Central Railway company. In 1900 the company purchased four steam vessels to be used for freight and passenger service in connection with the company's railway, and this was how the Algoma Central fleet was born. Over the last century, Algoma became a publicly traded company in 1959, and held interests in many aspects of the transportation industry as well as property management, all while maintaining its focus on the marine fleet.

In August 2019, employees of Algoma's head office in St. Catharines, Ontario came together to celebrate this history with a 120th birthday celebration. Our vessel crews also celebrated on board.

To learn more about our history <u>click here.</u>

Our domestic dry-bulk fleet consists of 11 selfunloaders and 8 gearless bulkers serving a variety of customers in the Great Lakes - St. Lawrence Seaway region.

Our product tanker fleet comprises 8 Canadian flag tanker vessels operating on the Great Lakes - St. Lawrence Waterway and the east coast of North America.

> Our ocean self-unloader fleet consists of 8 vessels that participate in the world's largest Self-Unloader Pool as well as 2 additional joint venture vessels.

Our global short sea fleet comprises interests in 26 cement carriers, 3 of which operate domestically, 17 short sea carriers and 4 handy-size mini-bulkers.

### **Governance** Corporate & Sustainability

#### Governance

Strong corporate governance is a key foundation of a sustainable company. Algoma maintains a series of corporate policies and guidelines that are consistent with the standards of corporate governance for public companies.

Our eight person Board of Directors oversees company management and convenes the following committees:

- Executive Committee: responsible for review of major issues and making recommendations to the Board.
- Audit Committee: responsible for ensuring compliance with applicable securities regulations and oversight of internal controls.
- Environment, Health, and Safety Committee: responsible for oversight of the corporation's EH&S risk management.
- Corporate Governance Committee: responsible for effectiveness of the Board, compensation of directors and management, and oversight of pension and benefit plans.

Sustainability governance is the responsibility of senior management of the company and is overseen by the Environmental, Health and Safety Committee of the Board of Directors, whose chairperson is an active member of the environmental community. Algoma senior management meets semiannually with the committee to present company performance and plans related to environmental and health and safety issues.

#### **Ethics & Compliance**

All employees, officers and directors of the company are annually required to confirm their commitment to Algoma's Code of Conduct and are expected to act in alignment with the company's core values, including Integrity.

The Code of Conduct includes:

- Commitments to compliance with all laws, regulation and policies that apply to the company and its employees.
- » Guidance on Confidentiality of Information and Conflicts of Interest
- Commitments related to Respect in the Workplace
- » Guidance on Fair Dealing
- » Prohibition on Bribery
- Commitment to compliance with all Anti-Money Laundering laws

The company provides for confidential reporting of known or suspected breaches of the Code of Conduct or other concerns through either 'good faith' reporting to the Assistant Vice President of Human Resources or anonymously via the Algoma Complaints Hotline established as part of the Policy Regarding Complaints on Accounting and Auditing Matters.

For more information regarding Algoma's governance related policies, please visit our website <u>www.algonet.com</u>.

# Vision & Values

In 2019 Algoma's senior management team reflected on how the company has grown and evolved, and our aspirations for the future, and announced a new vision: "Marine Carrier of Choice".

Our new vision is intended to be inclusive of all of Algoma's stakeholders: we want employees to choose to work for Algoma, customers to choose us as their preferred carrier, suppliers to choose to do business with Algoma, investors to choose to buy Algoma shares, partners to launch joint ventures with us, and ultimately, society to choose the marine mode of transportation as the most sustainable way to ship goods.

The vision also serves as a guiding light for all employees, and is supported by the company's core values of Teamwork, Passion, Integrity, Ownership, and Sustainability. These values are the principles to which employees can refer back when conducting their day-to-day activities and business operations.



### Sustainability

QUIN

FORWARD, WE GROW

Sustainability is one of our core values at Algoma. While there are many ways to define sustainability, it's meaning for us can be summarized as:

We believe in our people, we care for our planet and we work to ensure the prosperity of our stakeholders.

## **Developing Our Strategy**

In 2019 we updated our sustainability strategy to formally encompass a broader range of focus areas and priorities.

#### **Employee Surveys**

Sustainability surveys were conducted with both our shipboard and shoreside employees to help inform our sustainability strategy. The surveys gauged how employees view the company's current sustainability efforts and gathered their input on issues of importance. This valuable feedback was considered by senior management during a materiality assessment process and development of the strategy.

#### Stakeholder Engagement

Algoma engages with a number of stakeholders to monitor the status of marine industry issues through a number of ways, including committee participation at the Chamber of Marine Commerce, Green Marine and International Chamber of Shipping, and attendance at International Maritime Organization (IMO) and other industry meetings. We also engage with customers through a bi-annual survey and collaborate and work on a regular basis with government agencies and policy makers.

#### **Materiality Assessment**

Algoma's leadership team and key departmental stakeholders undertook a materiality assessment to identify and prioritize sustainability issues. The assessment was initiated with a core list of approximately 20 issues informed by stakeholder and industry concerns, the Global Reporting Initiative (GRI) transportation sector guidance, and sector specific issues from the Sustainability Accounting Standards Board (SASB). Following this, an evaluation framework incorporating aspects of both the SASB and GRI assessment methods was applied. This involved leveraging the expertise and knowledge of the team to rank the list of issues based on several considerations, including:

- » employee and stakeholder concerns
- » legal, regulatory and policy drivers
- » industry norms and best practices
- » direct financial impact and risk
- » opportunities for innovation.

The 10 highest priority issues resulting from the above process were as follows:

Pollutant air emissions	Workplace safety	
Climate change/GHG emissions	Training and development	
Spills and releases to water	Employee attraction and retention	
Biodiversity	Health and wellness	
Climate change resiliency	Diversity and inclusion	Priori

#### The Foundations

In developing the strategy, we wanted to recognize those foundations that have always formed the basis of our approach to sustainability. These include strong corporate governance, our shared values, our commitments to community and shared prosperity and the robust environmental, health and safety management system policies and procedures that have been in place for many years at Algoma. These fundamentals are key to our strategy. Another important aspect of Algoma's culture and sustainability efforts is Operations Excellence, first introduced at the company in 1998 and promoted and encouraged continually since then. Algoma employees work to achieve operations excellence; this means striving for excellence in safety performance and injury prevention, in providing value for our customers and in reducing incidents that could result in ship out of service time.

# The Result

Building on our foundations and incorporating the on-going and updated priorities identified through our employee surveys and materiality assessment, our strategy is presented below.



# This Ship Sails Safe

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Keeping each and every one of our employees safe and healthy is our most important responsibility. In 2018 we adopted **This Ship Sails Safe** as our new safety slogan.

### **Our Safety Culture**

Algoma is committed to injury prevention and a safe workplace. We continue to enhance our worker safety practices and programs with the goal of ensuring all employees return safely to their homes and families from the workplace.

#### Safety Management

In our on-going safety efforts, we continually seek to upgrade and improve our safety management culture in a persistent drive for zero injuries. An experienced team is dedicated to the management of health and safety risks and to reinforcing the belief that we can all stay safe and the philosophy that we must look out not just for our own safety but the safety of others around us.

One of the foundations of our safety culture is our safety management system (SMS), which is certified to the global marine industry's International Safety Management Code and the International OHSAS 45001 Occupational Health and Safety Assessment Series standard. These standards are designed to help organizations improve employee safety, reduce workplace risks and create better, safer working conditions through implementation of procedures, practices, training, self assessment, external audits and continual improvement.

Injury prevention is continually promoted throughout the company using various risk management tools. Most recently, we have renewed our focus on the Hazard Identification program and analysis of leading indicators.

#### More Hazard ID's = Greater Risk Awareness

As part of safety risk management, vessel crews are encouraged to participate in the Hazard ID Program. This program requires crew members to observe on-board tasks to evaluate each step for risks and ensure that the process is safe from start to finish.

Any required improvements are identified and acted on, and suggestions made to amend the written procedures and training program. The number of Hazard ID's completed by our crews continues to increase, contributing to improved risk awareness and safety management.



#### The Importance of Leading Indicators

Algoma focuses both on leading and lagging indicators in injury analysis and prevention. Personnel are encouraged to identify and raise near misses for investigation and corrective action. The more hazards and near misses that are identified and controlled, the fewer the number and severity of injuries, highlighting the importance of paying close attention to leading indicators.



\*Lost Time Injuries

#### Senior Management Review

In order to strengthen teamwork and increase ownership of injury prevention by line management, every personal injury and near miss is discussed and reviewed with senior management on a weekly basis.

#### The Next Level - Off the Job Safety

Over 80% of safety incidents occur at home and we are now extending our safety programs to address this issue. Through training, positive reinforcement and consistent messaging our crew members develop good safety habits that we encourage them to also apply while outside of the workplace. Our onboard Safety Management Committees include an 'off-the-job' safety topic at each monthly meeting. In the office, a 'safety short' is discussed at the weekly Operations meeting.

#### Safety Training & Drills

Safety training, drills and exercises are a key component of our safety management culture and an important part of our daily operations for prevention, mitigation and response.

Algoma closely monitors all regulatory requirements to ensure our safety training meets industry standards, and often goes above and beyond these requirements in order to strengthen our safety programs. For example:

- Algoma supports Marine Medic certification courses for those who wish to obtain this higher level of learning.
- Professional development of our piloting officers is promoted through shiphandling training.

Drills are scheduled and conducted onboard vessels to review and practice the company's Marine Emergency Response Plan, including various emergency scenarios such as vessel groundings, fires, pollution, and serious medical emergencies. After each drill, exercise or actual event a critique is conducted to review the effectiveness of the crew and shore side response, all with the goal of continuous improvement.



#### Safety In Partnerships

Algoma's dedication to a safe working environment extends beyond its employees to include our business partners. We have close working relationships with our customers, contractors and suppliers and strive to align our health and safety efforts with those who have similar commitments. All contractors are required to read, acknowledge and follow our Contractor Management Process in support of our collective efforts towards zero incidents. Information and best practices surrounding hazards and mitigation is commonly shared between Algoma and these partners.



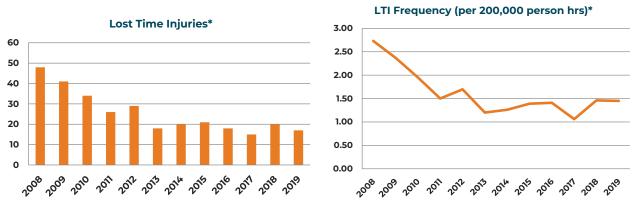
### Safety Tools

## Safety Performance

#### **Lost Time Injuries**

After achieving our best ever safety performance in 2017, with fifteen lost time injuries, the number of injuries increased in 2018 and 2019, although remaining in the average range experienced over the last several years. We continue to focus our efforts on injury reduction through implementation of our safety management system and risk management tools such as pre-job meetings, hazard identification and near miss reporting.

Very tragically, we experienced a fatality in 2018. A crew member on one of our international vessels suffered a fatal injury while engaging in mooring operations. Fatalities are devastating for the Algoma family and cause us to intensify our risk management efforts. See below for a summary of measures taken following this incident.





#### Improving Safety in Mooring Line Operations

In response to the tragic mooring-related fatality in 2018, an in-depth review of mooring and line-handling operations, particularly in non-standard situations and ports, was undertaken and further safety measures developed in an effort to ensure that this does not happen again. Algoma's Safety Team attended each ship in the fleet to conduct a Safety Stand Down meeting to discuss the mooring safety program, hazards and control measures, and to review each mooring-related incident that has occurred on an Algoma vessel in the last ten years. Awareness training was also provided during Annual Officers Meetings with a focus on mooring safety, situational awareness, hazard identification and risk tolerance. In addition, identification and clear labelling of 'snap-back zones' on board each vessel was conducted. We continue to investigate ways to further mitigate this risk.



#### Reasons I Work Safe Campaign

To re-inforce the importance of safety and injury prevention, ship's crews and shore employees were challenged in 2019 to create videos describing why they work safe. The resulting videos demonstrated the creativity and teamwork of our employees and their passion for working safe.



### Safety Performance Summary

Goals	Progress
Continuous improvement in safety management system and culture	<ul> <li>Upgraded Safety Management System certification to ISO 45001 in 2019 with an associated increased focus on prevention and proactive risk management</li> </ul>
Reduce Lost Time Injuries (LTI's) with a goal of zero	<ul> <li>17 LTIs occurred in 2019, representing a 15% improvement over 2018</li> <li>24 vessels achieved zero LTIs in 2018</li> <li>27 vessels achieved zero LTIs in 2019</li> <li>Focus in 2020 will be on: pre-job meetings and highlighting of job safety analysis to help influence lower risk tolerance; reducing numbers of slips, trips and falls</li> </ul>
Reduce Lost Time Injury Frequency (per 200,000 hours)	<ul> <li>LTIF increased in 2018/2019 compared to 2017</li> <li>Continue to focus on proactive risk management</li> </ul>
Improve Line Handling Safety	<ul> <li>Enhanced training and awareness was provided throughout 2019</li> <li>Marking of snap-back zones was completed in 2019</li> <li>Testing 'non snap-back' synthetic mooring lines</li> </ul>
Increase Number of Hazard IDs Completed	<ul> <li>7043 Hazard IDs completed in 2019, for a 36% increase over 2018</li> <li>The use of POINTs (Plan, Observe, Inform, Note and Track) cards will continue to be promoted</li> </ul>
Enhance Off the Job Safety	<ul> <li>Introduced training on Off the Job safety topics on board and in the office, in 2019</li> </ul>



### We Care For Our Planet

Algoma's vessel operate in some of the most beautiful and treasured areas of the world. We are committed to protecting these environments, reducing our footprint and continually improving our environmental performance.

# **Taking Action on Climate Change**

We are taking measures to reduce greenhouse gas emissions from our fleet and to meet our 2025 target of a 25% reduction in carbon intensity.

### **Carbon Reduction Targets**

Marine shipping transports 90% of world trade and is a vital part of the global economy. It is also the most environmentally efficient way by far of transporting cargo. Despite this, carbon emissions from global marine transport could grow significantly by the year 2050 due to increased trade, therefore it is critical that work towards decarbonizing the global marine industry proceeds. In 2018 the IMO set the following ambitious goals for the marine industry:

<b>40%</b>	70%	<b>50%</b>
Intensity	Intensity	Absolute
reduction	reduction	reduction
by 2030	by 2050	by 2050

In 2015 Algoma set a target of a 25% reduction in carbon intensity for our fleet by 2025. We are making good progress towards achieving this and in 2020 will review our progress and goal setting in light of the IMO's ambitious plan for international shipping.

#### **Reducing Emissions**

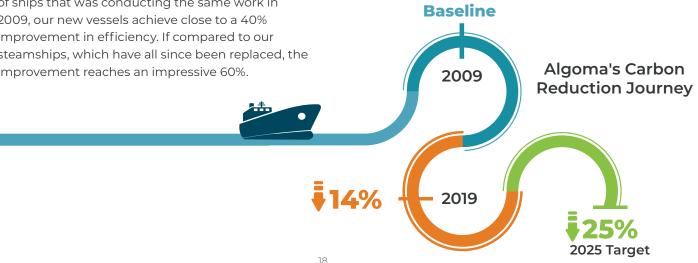
The efficiency of marine transportation makes it an environmentally friendly choice by nature. In particular, moving cargoes via inland and coastal waterways, also known as short sea shipping, is a more carbon efficient transport mode than rail or truck and can assist with national strategies to reduce overall transport emissions. Algoma's new Equinox Class vessels, designed and constructed with energy efficiency improvements in mind, have even further improved the already significant efficiency advantage of our domestic short sea fleet.

When comparing the carbon intensity of the average Equinox Class bulker to that of the group of ships that was conducting the same work in 2009, our new vessels achieve close to a 40% improvement in efficiency. If compared to our steamships, which have all since been replaced, the improvement reaches an impressive 60%.

We continue in our efforts to reduce GHG emissions from our entire fleet of vessels, both old and new. We have implemented Ship Energy Efficiency Management Plans (SEEMPs) on all vessels and have greatly improved our capability to measure and understand energy efficiency of the fleet. Fuel and peformance monitoring systems have been installed to provide real time measurements relative to key performance indicators, and further improvements in monitoring and analysis are underway.

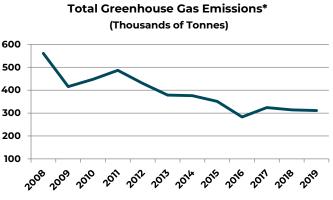
Some of the technical and operational measures that we are taking to reduce our fuel consumption include:

- Upgrades to performance monitoring and control systems
- Fuel consumption trials to validate performance
- Refining combinator curves to ensure the most » efficient propeller pitch & engine operation
- Refining ballast plans and/or trim »
- Upgrading loading software to facilitate loading closer to capacity and optimization of trim
- Using engine analysers to evaluate and improve engine performance
- Condition based maintenance for improved reliability and efficiency
- New hull coatings for better fuel efficiency
- Upgrading lighting to LED lamps
- Energy audits



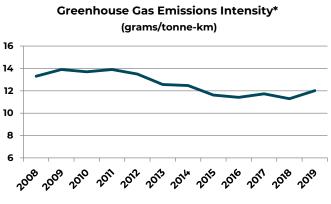
#### **GHG Performance**

Total and intensity-based GHG emissions for our domestic fleet since 2008 are presented below. Our ocean fleet was not fully under Algoma operations management until 2019 and as a result is not yet included in this data.



\*GHGs as  $CO_2$  Equivalent; combined domestic dry-bulk and tanker fleet

As shown above, annual total GHG emissions for the domestic fleet have declined over the last decade. Absolute emissions are directly related to the number of ships operating within a given year, but are also influenced by vessel efficiency. The number of owned or managed ships in our domestic fleet is down 28% since 2008 while total emissions have declined by 45%.



\*GHGs as  $\rm CO_2$  Equivalent; combined domestic dry-bulk and tanker fleet

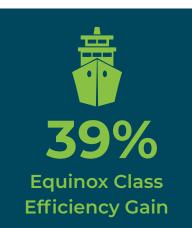
The GHG intensity of our overall domestic fleet has seen a fairly consistent downward trend, with a slight uptick in 2019. GHG intensity, as an indicator of efficiency, is dependent in part on vessel characteristics such as design parameters, engine efficiency and cargo carrying capacity, and also reflects the ship's operating profile and proportion of time it is carrying cargo. The observed increase is due to changing market conditions affecting our product tanker fleet.

Our dry bulk fleet has maintained a consistent reduction however, with an overall reduction of 19% (GHG's emitted per tonne of cargo carried one kilometre) in the last decade. This is primarily a result of fleet renewal along with other equipment and operational improvements.



19% CO<sub>2</sub>

(Since 2009 - per cargo tonne-km -Domestic Dry-Bulk Fleet)



## **Minimizing Our Footprint**

#### **Reducing Sulphur Emissions**

On January 1, 2020 the IMO's global fuel sulphur cap came into effect, bringing into force a mandatory reduction in the allowable amount of sulphur in marine fuels from 3.5% to 0.5%. This is in addition to the existing fuel sulphur limit of 0.1% in Emission Control Areas (ECAs), such as in coastal North America, the Baltic Sea and North Sea. The use of technologies on board ships to achieve an equivalent reduction in sulphur oxide (SOX) emissions is also allowed.

Algoma vessels are meeting these requirements through either switching to low sulphur fuels or installation of exhaust gas cleaning systems, also known as scrubbers. Transition to low sulphur fuels was completed by our international fleet by the deadline of January 1, 2020. Our domestic fleet, operating under the Canadian fleet averaging program, is complying through a combination of fuel switching and exhaust gas scrubbing.

#### **Investing in Scrubbers**

All of Algoma's new Equinox Class lakes vessels are equipped with closed loop scrubbers. In addition, two of our domestic vessels are fitted with hybrid systems capable of operating in either open or closed loop mode. The hybrid units are used in closed loop mode when operating in the lakes. These scrubbers meet all applicable regulatory requirements according to the IMO Guidelines for Exhaust Gas Cleaning Systems.

Navigating the decision on how best to reduce overall emissions involves many considerations. Marine distillate fuels (such as diesel or gas oil) and liquified natural gas meet emission control area standards, but due to cost and availability are not always a feasible option. Exhaust gas scrubbing technology is proven and readily available and represents an environmentally and commercially responsible way to reduce sulphur emissions. Studies indicate that, depending on engine and scrubber type and mode of operation, scrubbers can also reduce particulate matter and may achieve a modest reduction in nitrogen oxide (NOx) emissions.

Emissions testing conducted on the Algoma Equinox in 2017 demonstrated a 98.3% removal of SOx, 43% removal of total suspended particulate matter and 7% removal of NOx. Despite being an IMO approved alternative method of compliance since 2009, some global ports have imposed restrictions on open loop scrubbers. Although Algoma operates closed-lopp scrubbers, we remained concerned that these actions undermine the good faith that shipowners placed in international and national regulations when they made significant financial investments in this technology.

#### Scrubber Facts:

- Exhaust emissions and discharges to water from scrubbers are continuously monitored and logged in tamper proof record keeping as per IMO guidelines and national regulations.
- Waste sludge from scrubbers is not allowed to be discharged overboard or incinerated on board, and is disposed at properly licensed landbased facilities.
- Some studies show that the reduction in fine particulate matter emissions (black carbon) achieved through use of a scrubber is at least as much as through switching to marine diesel fuel.
- » The white plume from scrubber stacks is water vapour and not contaminant emissions.





#### **Reducing Waste**

Algoma is dedicated to resource conservation and waste reduction. To support these efforts, we have put programs in place to divert waste from landfills and reduce at source.

#### Shipboard

The majority of our domestic vessels have been equipped with segregated stations for recycling and organics collection since 2011. The Purchasing team also makes efforts to reduce unnecessary waste at the source by reducing single use products from the vessels' order lists, encouraging reusable items and asking suppliers to reduce packaging. For example, single use dinnerware or utensils are not used on board, and crew members are supplied with reusable cups and mugs.

#### Shoreside

In 2019, waste management practices at Algoma's head office in Niagara were reviewed and improved. Our Green Team collaborated with the local municipality of Niagara Region and independent waste and recycling service providers to roll out the following changes:

- » Three-stream waste management systems were placed throughout the office consisting of collection containers for landfill, mixed recycling and organics.
- » Training was provided on acceptable materials for each stream.
- » Individual garbage bins were removed from employees' desks to encourage diversion of recyclables and food waste to recycling or composting.
- » Employees were challenged to reduce the rate of contamination in the recyclables, with follow-up audits confirming success.

#### As a result of these efforts, both shipboard and shoreside, Algoma was awarded the Gold Certification level in the Region's Rethink Your Waste at Your Workplace program.





Algoma shoreside staff participating in Pitch In Day fall 2019.



Algoma's President & CEO Gregg Ruhl with the Green Team launching the new recycling program at head office.

### **Preserving Marine Biodiversity**

### **Aquatic Invasive Species**

With full ratification of the IMO's Ballast Water Convention in 2017, the global fleet has commenced installation of ballast water treatment systems to address the issue of aquatic invasive species (AIS).

Algoma vessels comply with all ballast water and biofouling management requirements and best practices in our efforts to mitigate impacts related to AIS. We are in the process of installing ballast water treatment systems on our ocean-going fleet, having fitted a system on the Algoma Integrity in 2019, and preparing for additional installations in 2020/21.

For our domestic lakes fleet, we have been working for many years along with industry partners and regulatory agencies to advance understanding of the invasive species issue as it relates to vessels that operate in the Great Lakes - St. Lawrence region. We have also dedicated significant resources in efforts to develop feasible and risk-appropriate management solutions. It is well known that local waters in some regions of the world, including in the Great Lakes, are challenging to treat. Ballast water treatment systems represent a very significant financial investment, particularly for lakes vessels with large ballast volumes and extremely high flow rates, and it is important that any management measure provides the intended benefit in a consistent and cost effective manner. Algoma will continue to follow all requirements and best management practices as per regulations and joint industry/government agreements and to work towards an equitable and effective solution.



Ballast water treatment system, Algoma Integrity

Algoma has worked closely with AIS researchers and ballast water management system manufacturers for many years providing access to vessels for sampling and testing. In 2018, we provided a vessel platform and technical assistance to trial the mobile emergency/contingency ballast water management system, inResponse™.

#### **Marine Plastics**

Plastics pollution in the world's waters and its impact on marine life is a significant problem. Once in the ocean, plastic decomposes very slowly, breaking down into tiny micro-plastics that can be very damaging to sea life. While most of the plastic waste originates from land sources, the marine industry has historically had some share of the responsibility. In 2013 the IMO brought into force mandatory prohibitions on the discharge of plastic waste on the high seas. Prior to that it was only illegal within 12 miles from land.

In the Great Lakes, discharge of any garbage, including plastics, has been illegal for many years. Algoma is committed to full compliance with these prohibitions. All waste materials are either segregated for recycling or disposal ashore, or incinerated on board if allowed and where recycling is not possible. We believe a large part of the solution is to reduce plastics at source and in 2011 eliminated single use plastic water bottles and dinnerware on board our domestic vessels. If plastic waste is generated on board it is recycled ashore to the extent possible.



### **Protecting Marine Mammals**

#### North Atlantic Right Whales

North Atlantic Right Whales are one of the most endangered of all large whales, with a remaining population of only about 400 animals. These whales migrate north along the North American east coast during the spring and summer to feed and in recent years have been frequenting the Gulf of St. Lawrence, travelling and congregating in areas of high fishing and commercial vessel activity.

Several whale deaths occurred in Canadian waters in 2017, following which the government of Canada put in place protection measures. No deaths were recorded in 2018, however nine were experienced in 2019, with at least three of those believed to be related to ship strikes.

Algoma is making efforts to protect these whales. We implemented Marine Mammal Management Plans on our vessels in 2018 and follow all requirements and best practices related to the protection measures, including slowing down and, if possible, avoiding certain areas during periods of high whale activity.

Algoma also participates in the Reseau d'Observation de Mammiferes Marins (ROMM)/ Marine Mammal Observation Network (MMON) to compile observation data on these and other whales in the lower St. Lawrence River and Gulf of St. Lawrence. Our crews are supplied with information on how to identify different species and report their location so that this data can be provided to researchers. In 2018 and 2019 our crews reported whale observation on over 250 occasions.

250+

Reported Whale Observations by Crew (2018/2019)

#### **Underwater Noise**

There is growing recognition of the issue of underwater radiated noise and the contribution of marine vessels to this problem. Underwater noise can negatively impact marine mammals by impairing their ability to communicate, find food, navigate, avoid danger and reproduce. Noise from ships is generated mainly by propeller cavitation and onboard machinery and the low-frequency sounds generated can travel vast distances in deep water marine environments.

While shipping is not the only contributor to anthropogenic underwater noise, it is one of the main sources, along with seismic exploration and military and commercial sonars. Algoma is aware of this issue and is participating with Transport Canada in discussions on how best to measure and mitigate impacts. For vessel operators, the starting point is to understand the noise profile of individual vessels. We are planning how to approach obtaining this information, as underwater noise testing is a specialized and complex activity. We have also committed funds towards supporting a proposed underwater noise research station in the St. Lawrence region. Noise is reduced on our new vessels through the use of vibration compensators, resilient mounting of equipment and acoustic insulation.



Marine Mammal Management Plans have been implemented on Algoma vessels that travel in whale zones to increase awareness of the impacts related to underwater noise and ship strikes and to provide procedures and best practices to mitigate these impacts.

### **Protecting Marine Ecosystems**

### **Preventing Leaks & Spills**

Algoma is committed to reducing the risk of spills and operational leaks from our vessels. Our crews conduct regular equipment inspection and maintenance to inspect for leaks, drips and housekeeping issues. We also have very strict procedures in place for routine fuelling and work with our shore-side suppliers to ensure minimal risk, as well as maintaining well developed contingency plans in case of any incidents.

We have reduced the potential for oil and lubricant releases to the environment by implementing equipment upgrades and phasing in of environmentally preferable lubricants in underwater equipment. Minimization of oil leakage from stern tubes, a common source of operational leakage, has been addressed through installation of water lubricated units on all our new vessels. On our older vessels, we have either retrofitted new units or switched to fully biodegradable products.

Consistent with our improvement goals in the area of bilge water management, we are continuing to upgrade oily water separators, installing new units on several vessels in 2019. All newer vessels and our domestic product tankers have implemented integrated bilge water treatment systems in line with IMO guidelines to reduce the amount of bilge water generated.

### Tanker Safety

The Algoma domestic product tanker fleet proudly provides safe and reliable transportation of liquid petroleum products throughout the region. All of our tanker vessels are double-hulled and maintain the highest level of environmental and safety performance. Each vessel is subject to rigorous internal and external oversight and undergoes a minimum of five audits, surveys and inspections annually, including Classification Society, Port State Control, internal and external management system audits, and industry/ customer based compliance verifications.

Through our commitment to high standards and level of assessment, superior performance and compliance is achieved. Several of our vessels have achieved the company's Gold Flag Award, which includes a 'no spill' criterion. Our tanker fleet has not had any major oil spill since the beginning of operation in 1998. Over the last decade three minor discharges for a total of less than 60 litres of oil were released to water. Any discharge of oil or oil derived product to the water is a serious event and Algoma always follows up with a full response to these occurrences. Our crews and shore side support teams work diligently to ensure the highest standards of spill prevention and response.



### **Responsible Ship Recycling**

Algoma has recycled multiple vessels during the last decade as we have gradually replaced older vessels with new builds. These end-of-life ships have all been recycled at responsible recycling facilities in either Aliaga, Turkey or Ontario, Canada, where, in line with our ship recycling policy, the dismantling and recycling processes will not pose any unnecessary risks to human health, safety or the environment. Nine of these vessels have been recycled in Port Colborne near Algoma's head office. Elements of our policy:

- » An Inventory of Hazardous Materials is prepared for each vessel and provided to the recycling facility.
- » For off-shore operations, contracts are entered into only with facilities that commit to recycling operations in adherence with the Basel Convention, European Directives (where applicable) and the principles of the IMO Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ships (2009).
- » Periodic verification that proper procedures are followed by the ship recycling facility is conducted by an external third party.

### **Green Marine**

Algoma has been a very active participant in the Green Marine voluntary environmental improvement program since it began over 10 years ago. Participation assists in advancing our sustainability strategy and environmental management programs. The Green Marine program challenges its participants to continually improve by introducing new indicators and increasing the stringency of performance criteria as needed. Algoma's scores have steadily increased since joining the program in 2008 as one of the co-founders. In 2019, Algoma scored an average of 4.2 out of a possible 5.



For more information on the program <u>click here</u>.

#### **Environmental Performance Summary**

Goals	Progress
<ul> <li>Reduce GHG Emissions:</li> <li>2% average annual basis</li> <li>25% by 2025</li> </ul>	<ul> <li>Combined domestic fleet (dry bulk and tanker vessels) has reduced emissions by 14%</li> <li>Dry-bulk fleet only has reduced emissions by 19% and a 2.1% annual reduction</li> <li>Ship energy efficiency management plans (SEEMPs) implemented on all vessels</li> <li>Dedicated energy management team continues to investigate energy efficiency opportunities and enhanced monitoring and analysis</li> </ul>
Reduce SOx Emissions	<ul> <li>Invested in eleven exhaust gas scrubbers to date.</li> <li>Ocean fleet successfully completed transition to marine diesel fuel</li> </ul>
Reduce AIS Risk	<ul> <li>Ballast water treatment system installed on Algoma Integrity</li> <li>Plans for three additional installations in 2020/21</li> </ul>
Reduce Leaks and Spills	<ul> <li>Water lubricated stern tubes or replacement with EALs on all vessels</li> <li>New oily water separators installed on three vessels in 2019</li> <li>Integrated bilge treatment systems implemented on tanker vessels and new builds</li> </ul>
Reduce Waste	<ul> <li>Expanded office waste diversion program in 2019</li> <li>Ongoing waste reduction program on ships</li> <li>Will continue to promote reduction of single use plastics at source</li> </ul>
Marine Mammal Protection	<ul> <li>Marine mammal management plans implemented on all vessels and joined whale conservation efforts in 2018</li> <li>Committed funds to proposed underwater noise research station</li> </ul>

### **Operations Excellence**

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In addition to being socially and environmentally responsible, we strive to provide and maintain efficient and reliable marine transportation for our customers. **Reliable Operations = Customer Value** 



ALGOMA INNOV

### **Customer Value**

The Algoma team is always looking for innovative ways to improve our operations and fleet reliability in order to provide value for our customers.

By aspiring to operations excellence, our best efforts are directed towards ensuring the health and safety of employees and contractors, avoiding incidents, maintaining company assets in peak condition and safeguarding our customers' cargoes.

#### **Examples of Operations Excellence**



Condition monitoring for improved predictive and preventive maintenance – On-line vibration monitoring systems were installed on our product tankers, allowing tracking of equipment condition and proactive identification and resolution of any mechanical issues.



Upgrading of cargo gauging systems – The cargo gauging systems on two tanker vessels were renewed or upgraded to promote increased reliability during cargo operations and reduce or eliminate stoppages due to breakdowns or errors in systems.



Improved load plans - The load plans for vessels trading into a customer dock at Two Harbours and Duluth were improved through the collaborative efforts of the Algoma Operations team and the valued customer. These efforts resulted in faster turnaround loading in port.



New cargo gates – Over \$2.7M was invested in new cargo gates for the ocean self-unloader Algoma Integrity to accomodate a new trade. The new gate system allows for better flexibility in cargoes and an increase in unloading rate, as well as improved reliability and safety.

04

05



New cement carriers - The successful introduction of two NACC pneumatic cement carriers to Algoma technical management required intense collaboration between Algoma's Operations and Crewing teams, our crews and our customers. Challenges related to a new type of cargo system and new and unique loading facilities were quickly overcome to ensure high performing vessels. In 2019, shortly after being introduced to Algoma's portfolio, both vessels achieved Gold Flags for Operational Excellence due to the hard work of all involved.

#### **Fleet Renewal**

Investing in, to date, ten newly constructed Equinox Class ships for our domestic lakes fleet has greatly assisted in our overall sustainability efforts. We recognize that to be sustainable, we also have a responsibility to maintain long-term profitability for our shareholders and employees, and these new vessels will assist us in achieving this goal. The Equinox Class vessels demonstrate improved environmental performance and were constructed with better safety, ergonomic and crew comfort innovations and features. Amongst their many improvements is better fuel efficiency resulting in 40% less greenhouse gases per tonne-kilometre of cargo carried and exhaust gas scrubbers to remove sulphur oxides from engine exhaust gases. These enhancements are contributing to our efforts to be operationally excellent. For more information on our new vessels visit our website at <u>www.algonet.com</u>.

#### **Gold Flag Recipients**

Our Gold Flag program encourages and recognizes those vessels that achieve excellence in safety performance, incident reduction and provision of value for customers. The high standard for achieving the Gold Flag is: no treatment above first aid; no oil spill to water, land or deck, and; no ship, dock, cargo or bottom contact causing damage greater than \$10k. We congratulate our winners for 2018 and 2019.

#### 2018 Gold Flag Winners

Algoscotia	Algosea
Algoma Dartmouth	Algoma Discovery
Algoma Transport	Bahama Spirit
Algoma Spirit	Algoma Hansa
Algoma Mariner	



#### 2019 Gold Flag Winners

Algoscotia	Algoma Innovator
AlgoCanada	Algoma Compass
Algonova	NACC Quebec
Algoma Hansa	NACC Argonaut
Algoma Dartmouth	Algoma Vision
Algoma Discovery	Algoma Guardian



#### **Strategic Objectives**

The drive to operations excellence and other improvements in sustainability align with Algoma's strategic objectives for 2020.



### **Our People**

1:

Algoma's strong performance is a direct result of the individual and collective efforts of our employees.

We believe in our people.

# Valued Employees

We value the dedication and hard work of the employees who make up the Algoma family, and we continue to make people focused initiatives a priority in support of our vision as the Marine Carrier of Choice.

In 2019, we embarked on renewing our vision and values. It was important for Algoma to re-visit what makes us who we are and understand where we want to go. As we focus on our people initiatives, our new vision and values will guide us and reinforce and strengthen our culture.

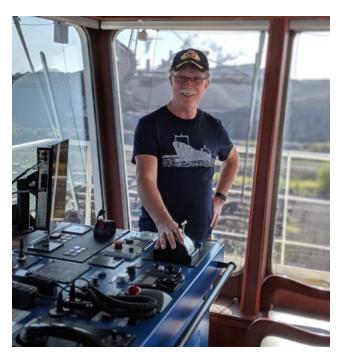
We maintain policies and programs to ensure a supportive, engaging and healthy work environment. Policies are in place to ensure fair and equitable treatment of all employees, respect of diversity in the hiring process and a workplace free from discrimination or harassment. <u>Click here</u> for more information on these and other company policies.

#### Ensuring a Healthy & Sustainable Workforce

Algoma is dedicated to the health and well-being of its employees and provides resources to support workers and their families in their daily lives and in times of need. Some examples:

- All employees and their immediate family have confidential access to an extensive Employee and Family Assistance Program offered at no cost to the employee.
- An ergonomics assessment program was provided at Algoma's head office in 2019 to educate employees on proper configuration of their work station to minimize injury.
- Accommodations are provided for employees who are unable to perform their regular duties due to an ailment. Our comprehensive Return to Work Program ensures that employees are able to return to work safely. Shipboard and shoreside management work closely with medical professionals to determine an employee's capabilities, and review options to offer modified work.

Algoma continues to search for innovative ways to support health and wellness for its employees. Looking forward, areas that we plan to focus on include mental health initiatives and a review of new opportunities for virtual health services.



The Employee and Family Asssistance Program (EFAP) is a resource offering confidential support to employees in a wide range of areas including:

- 1. Mental health and well-being
- 2. Relationship management
- 3. Workplace challenges
- 4. Addiction counselling
- 5. Elder and child care resources
- 6. Legal advice
- 7. Financial Guidance
- 8. Nutirition and physical health guidance



During our annual Captains & Chiefs Conference, training on how to recognize and respond to mental health issues was provided.

### **Diversity and Inclusion**

Equitable treatment and inclusion are commitments ingrained in the workplace culture of Algoma, and reflected in the company's Employment Equity and Respect in the Workplace policies. Our company practices, policies and procedures support these commitments, and all employees are expected to support and promote the spirit of Employment Equity.

In 2018 and 2019, Algoma continued our support of the annual Women on the Water Conference, acting as a leader in the Canadian marine industry by sponsoring both employees and cadets from each of the different maritime schools across the country. The Women on the Water Conference is an important event that enables females in the maritime industry to network with industry leaders, future employers, maritime professionals, and fellow female mariners from across North America. Attendees are informed of many different opportunities within the industry, and can be linked with necessary support systems that will assist them throughout their careers. Algoma is committed to the fair and equitable treatment of all employees, and to providing an inclusive environment in which the talents of all employees can be fully utilized in support of successful company operations.



Algoma shoreside staff, crew and cadets at the 2019 Women on the Water Conference in Texas.

#### **Recruitment & Retention**

We believe we have the best employees and focus our recruitment efforts on continuing to secure the best talent for our team and encouraging strong and lasting employment relationships. Many of our employees have worked with the company for their entire careers.

Algoma participates in a number of recruitment fairs and information sessions to groups of all ages and demographics to highlight marine careers. In an effort to introduce awareness of opportunities in the marine industry early on, Algoma staff engages Grade 10 students during their "Career Talk Tuesdays" or other similar events. Guidance counsellors are also regularly invited to visit our office and, when appropriate, our vessels to gain information about careers in the marine industry that can be passed on to students who are interested in skilled trades as a future career.

Algoma provides not only a great place to work but also competitive total compensation packages. In 2019 we formalized our compensation structure for shore based employees to ensure equitable and competitive compensation. Algoma continues to work with our labour partners to balance providing fair remuneration with maintaining an efficient and sustainable operation. Together we developed unique and industry changing ways to address this balance and will continue to do so.

#### **Algoma Service Awards**

A new Service and Retirement Awards Program was introduced in 2019 to recognize our employees for their hard work, dedication and loyalty. Throughout the year, employees are also awarded Bear Bucks to recognize safety achievements as well as team and individual accomplishments, that they can use to purchase Algoma branded merchandise and show their Algoma pride.

In 2019, Algoma's average tenure was over 14 years. That is no coincidence. Algoma's employees are amongst the most loyal and dedicated out there and we are grateful to have them on our team.

### Fostering a Culture of Learning & Development

Algoma is committed to supporting the professional development of our employees, and invests in our people through a variety of programs and resources. We recognize that skills development is integral to our success and we work to ensure that our personnel are adequately experienced and trained and provided with continuing education and professional development.

In 2018, a Training and Development Specialist role was created to facilitate and administer the company's officer training and succession planning initiatives. The duties of this role include oversight of the company's formal programs for training Captain's and Chief Engineers and administration of its pilotage training programs.

Algoma also provides current active employees sponsorships that allow them to come out of the work force to upgrade their certifications. Examples of these programs include:

- An eight month upgrade course to qualify for 2nd and Chief Engineer Motor certification
- » A three year cadet program to become a Watchkeeping Officer, a new initiative launched in 2019.

We are keenly aware of the importance of supporting emerging professionals in skilled marine services therefore our team is highly engaged with all Canadian marine schools. We want marine cadets to be successful in their career and we hope they choose Algoma upon graduation.



Funding to the Algoma Marine Emergency Duties Centre at Georgian College. In 2019, Algoma continued to support our marine schools through scholarships and funding, promoting their marine programs and ensuring the curriculum meets the current and future needs of the marine industry. We provide scholarships to cadets in both nautical science and marine engineering programs, highlighting our commitment to the promotion of the marine industry.

"Algoma Central Corporation has partnered with Georgian College to provide its employees with an opportunity to strengthen their skills and deepen their knowledge through the pursuit of the Marine Engineering Management Graduate Certificate. Since the program's inception in 2016, six employees have pursued this wonderful opportunity to further their professional development. I'm delighted that through this innovative partnership, we can guide and support Algoma employees to become marine industry future leaders."

- MaryLynn West-Moynes, President & CEO, Georgian College

Throughout 2018/2019, Algoma team members:

- Attended marine college Open Houses to engage with potential students and parents
- Participated in and supported a variety of events at the marine colleges, including Skills Competitions and other competitive events challenging student knowledge and capabilities
- Provided shipboard safety training seminars for first year students



### The Human Resource Challenge

Recruitment and retention of shipboard employees is critical to our long-term success. Currently, the Canadian marine industry is facing a number of human resource challenges. The current workforce is aging and nearing retirement, and there is a lack of awareness amongst younger generations of the opportunities available to them in a maritime career. While there are increasing numbers of women on board, the marine industry remains heavily male dominated.

Algoma is committed to being part of the solution – not only to help ensure that we have the opportunity to recruit diverse talent but also to support the overall growth of the marine industry. In 2018 we joined efforts with others in the industry in a new Workforce Development Committee with the Canadian Chamber of Marine Commerce. Experienced representatives from various maritime companies came together to discuss common labour and recruitment challenges and to work together to tackle the shortages. Algoma also collaborates with members of the Canadian Institute of Marine Engineering to identify and support marine career awareness opportunities.



First year cadets at the British Colombia Institute of Technology along with memebers of our safety and operations team.



\$3 Million Invested in Shipboard Training in 2019



17 Captains were either hired or promoted in 2019 oo

13 Chief Engineers were either hired or promoted in 2019



\$526,000 awarded in scholarships to employee's children

# **Community Matters**

Algoma continues to lead through passion and we are committed in heart and mind to helping those in need.

## **Community Engagement**

In 2018 the Algoma Community Involvement Committee was formed to encourage and support employee engagement, organize events, and provide a connection between our shoreside and shipboard employees.

With our employees living across Canada we continue to support United Way as our main charity initiative. This provides a way for us to help strengthen the various communities of our employees and their families. In 2018 we were awarded the United Way Committee of the Year Award and in 2019 we were awarded the Campaign of the Year by our local United Way.



United Way Backpack for Kids event



United Way fundraiser

In addition to our significant support of United Way, Algoma and our employees have been involved in various other initiatives to promote positive social and environmental change. Organizations and initiatives that we supported during 2019 include the Kristen French Child Advocacy Centre, Autism Ontario and local Earth Day Pitch-In Days.

- » In 2018 \$82,140 was donated to the United Way, and this number increased to \$120,746 in 2019. This was made up of our generous employee donations, days of caring and our company match.
- » Algoma's 2018 Annual Rotary Golf Tournament, in support of Niagara's Children Centre and the First Ontario Performing Arts Centre, raised \$48,000, bringing the total donation to \$855,000 since the tournament began in 1999.
- » Algoma's annual Alzheimer's vessel campaign raised just over \$14,000 in 2018.
- » Algoma was a gold sponsor of Port Colborne's Canal Days in 2018 and 2019 a four-day celebration of the history and heritage of the Welland Canal.

The teamwork and relationship building involved in supporting these initiatives promotes a positive working environment and strengthens camaraderie amongst our employees.



Members of the Community Involvement Committee receiving the 2018 United Way Committee of the Year Award.

"On the heels of receiving the Committee of the Year Award last year, Algoma has achieved great success as a result of a strong committee. By informing and engaging all employees, the campaign thrived, growing by 47% in dollars raised and 41% in participation. There are over 210 workplace campaigns across the region. Algoma has been in the top 20 campaigns for as long as I can remember, and this year Algoma is number 6 of over 210, something to be very proud of." - Frances Hallworth, Executive Director of United Way Niagara

### **Performance Metrics**

Indicator	Units	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Environment													
Green Marine Scores (avg													
of scores for all issues) <sup>1</sup>	1(lowest) to 5(highest)	2.6	3.3	3.3	4.0	4.0	4.3	4.3	4.5	4.3	4.2	4.3	4.2
Greenhouse Gas Emissions	Thousands of Tonnes	561	416	448	487	430	378	376	351	283	324	314	311
(GHGs) <sup>1</sup>	Grams/tonne-km	13.3	13.9	13.7	13.9	13.5	12.6	12.5	11.6	11.4	11.7	11.3	12.0
Sulphur Oxide Emissions	Thousands of Tonnes	4.8	3.3	4.0	4.1	3.5	2.5	2.4	2.1	1.9	2.4	2.3	1.9
(SOx) <sup>1</sup>	Grams/tonne-km	0.11	0.11	0.12	0.12	0.11	0.08	0.08	0.07	0.08	0.08	0.08	0.07
Nitrogen Oxide Emissions	Thousands of Tonnes	13.7	10.1	10.8	11.8	10.5	10.2	10.1	9.5	7.6	8.8	8.5	8.4
(NOx) <sup>1</sup>	Grams/tonne-km	0.32	0.34	0.33	0.34	0.33	0.34	0.34	0.31	0.31	0.32	0.30	0.32
Spills / Leaks (<10 litres) <sup>2</sup>	Number	1	2	11	11	9	5	7	6	1	1	7	2
Spills / Leaks (> 10 litres)	Number	0	0	0	0	0	0	1	2	2	1	2	1
Recyclables <sup>1,7</sup>	Tonnes	N/A	N/A	99	133	143	127	156	132	85	84	80	91
Violations / Fines	Number / \$Amount	0	0	1/32,000 <sup>3</sup>	0	2/83,0004	0	0	1/5,000 <sup>5</sup>	03	8/19,600 <sup>6</sup>	0	0
Safety													
Lost time injuries	Number	48	41	34	26	29	18	20	21	18	15	20	17
Lost time injury frequency	LTIs/200,000 person hrs	2.73	2.37	1.95	1.50	1.70	1.20	1.26	1.39	1.41	1.06	1.46	1.45
Fatalities	Number	1	0	0	0	0	0	0	0	0	0	1	0
Economic													
Revenue	Cdn \$millions	689	520	394	583	560	491	503	413	379	451	508	568
Net earnings	Cdn \$millions	41	39	19	69	44	42	53	26	33	56	51	24
Donations / Sponsorships	Cdn \$	344,156	308,983	355,904	257,839	309,000	217,228	327,555	335,452	415,853	301,657	267,967	224,515

1. Domestic Dry Bulk and Tanker Fleets

2. Minor spills (<10L) includes any observed sheen on the water

3. Fine assessed again the vessel management firm Seaway Marine Transport related to delayed reporting of an equipment leak

4. Fine (\$75,000) levied against the vessel management firm Seaway Marine Transport related to a 2008 fatality. Fine (\$8,000) assessed by the USCG against the vessel management firm related to a 2011 inspection finding on the Honourable Henry Jackman

5. Fine levied for a 2014 spill of waste sludge (15 L) at a land-based transfer facility

6. Two Fines: (\$6,800) for a 2016 release of limestone cargo residue into water in unauthorized location; (\$12,800) for a 2015 spill (30 L) of fuel into water; One Alleged Violation: includes accidental discharge of untreated bilge water, under investigation by the USCG.

7. Recyclables, cardboard, organics, scrap wood