



# Community Liaison Committee Meeting #44

Tuesday, March 7, 2023



## Agenda

1. Review of December 13th, 2022 meeting notes
2. Membership Items
3. Cokemaking Emissions Performance
4. Public Complaints
5. New Air Quality Monitoring Stations
6. Electric Arc Steelmaking and Environmental Permit Applications
7. Legacy Environmental Action Plan
8. Next Meetings

# Membership

## Current Members and Alternates

### Representation

Algoma Steel  
Ministry of Environment, Conservation  
& Parks  
Public  
Public  
SSM Tribe of Chippewa Indians  
Algoma Public Health  
Chippewa County Health Dept.  
Batchewana First Nation  
Garden River First Nation  
City of Sault Ste. Marie  
United Steel Workers Local 2251  
St. Mary's River RAP Coordinator

### Primary Member

Fred Post  
  
Lori Jalak  
David Trowbridge  
Jillian Marquis  
Kathie Brosemer  
Melissa Francella  
Steve Carey  
Dan Sayers Jr.  
TDC  
Catherine Taddo  
Wayne Hubbard  
Lisa Derickx

### Alternate

Chris Galizia  
  
Rick Lalonde  
Anton Schoahs  
Dan Gabor  
  
Chris Spooney  
Suzanne Lieurance  
  
Maggie McAuley  
Dennis Gagne  
John Rankin

# Cokemaking Emissions Performance

100% Compliant with the Site Specific Standard leak limits

Key Performance Indicators related to Cokemaking Emissions:

- average intensity of pushing emissions
- average duration of charging emissions
- % lid leaks
- % off-takes leaks
- % door leaks

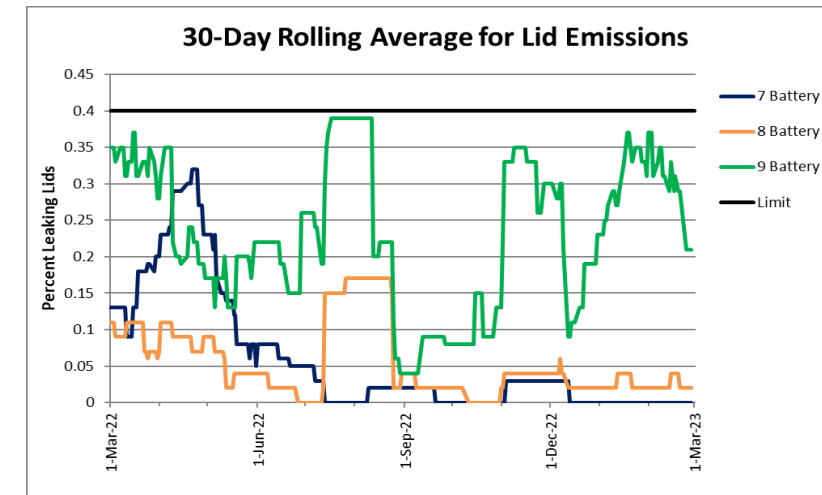
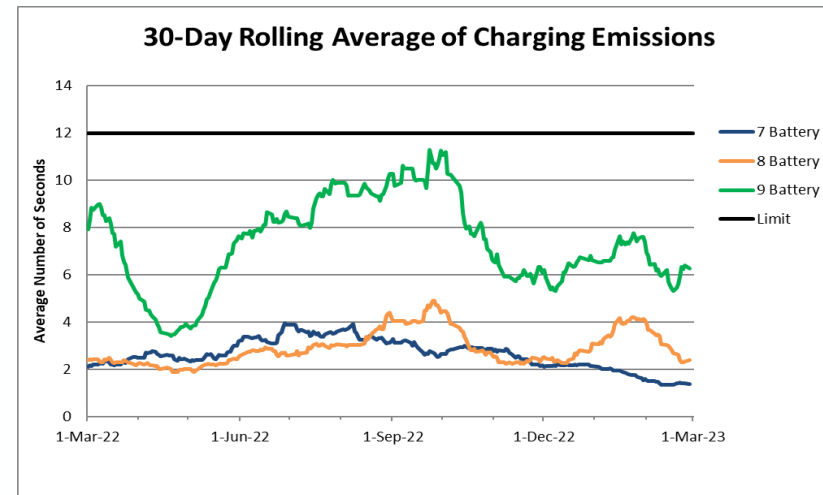
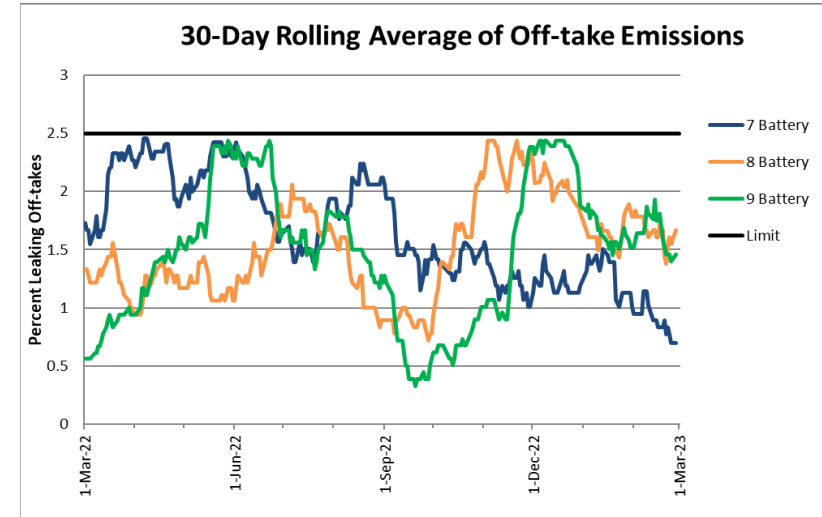
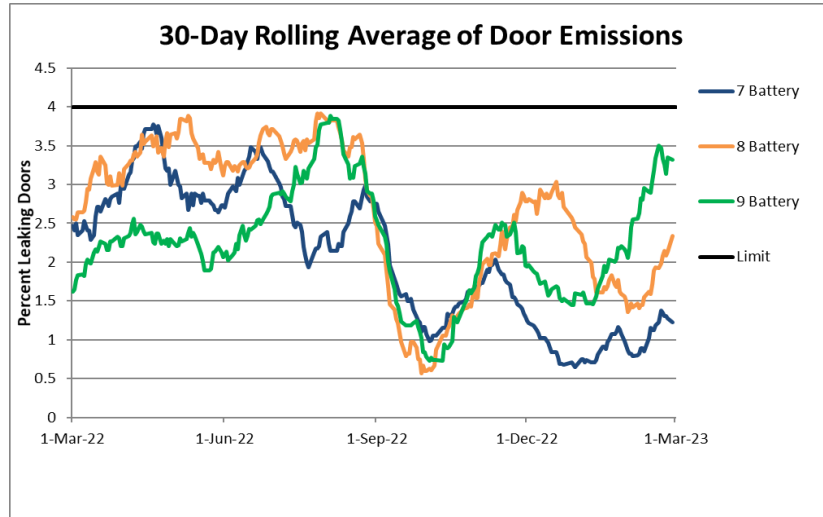
Performance is monitored and calculated daily for each battery

Algoma Steel is meeting the current leak limits on all three batteries.

Progressive Annual Reduction:

30 Day Rolling Average %					
Implementation Date	Doors	Lids	Off-takes	Charging Emissions	Pushing Opacity (%)
July 2, 2015	38	0.8	25	12 sec	50
January 1, 2016	22.5	0.8	15	12 sec	50
January 1, 2017	7	0.8	4.2	12 sec	50
January 1, 2019	7	0.8	4.2	12 sec	40
<b>January 1, 2020 onward</b>	<b>4</b>	<b>0.4</b>	<b>2.5</b>	<b>12 sec</b>	<b>30</b>

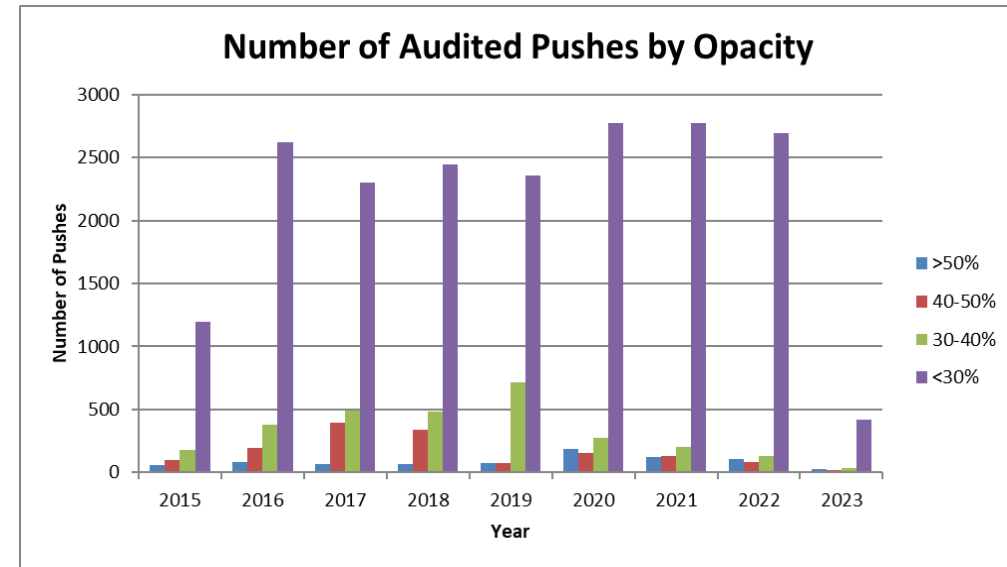
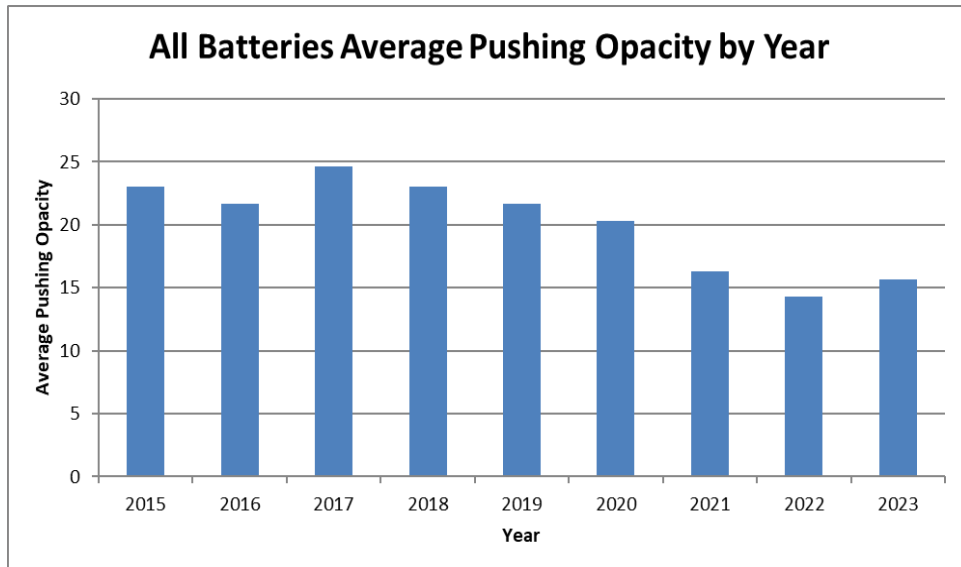
# Improved Air Quality Cokemaking Emissions Performance



**All batteries performing below leak limits**

# Improved Air Quality

## Cokemaking Emissions Performance



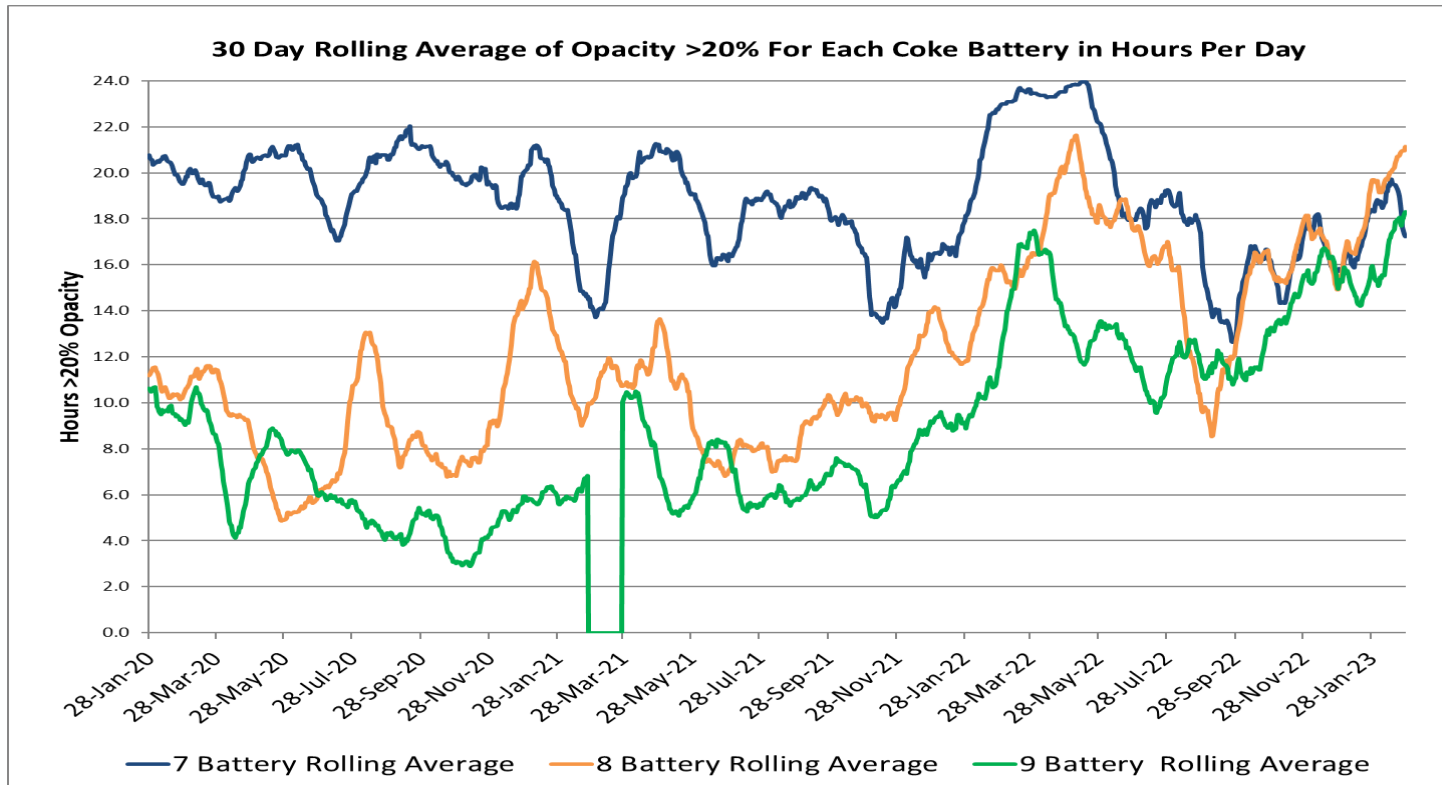
**Notes:**

- 2015 data begins on July 2nd when the standard came into force
- 2022 data includes Jan 1, 2022 to Feb 27, 2023
- Number of audits per year vary based on changing operating conditions

**To date all corrective actions have successfully corrected pushing opacity**

# Progress Improvement

## Cokemaking Stack Opacity



The implementation of Algoma's stack opacity reduction action plan is underway.

## Public Complaints

Public complaints received by Algoma since the last CLC include:

- Noise
- Odour
- Particulate

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**A detailed noise monitoring assessment was conducted and a potential source has been identified. A source mitigation plan is under development.**

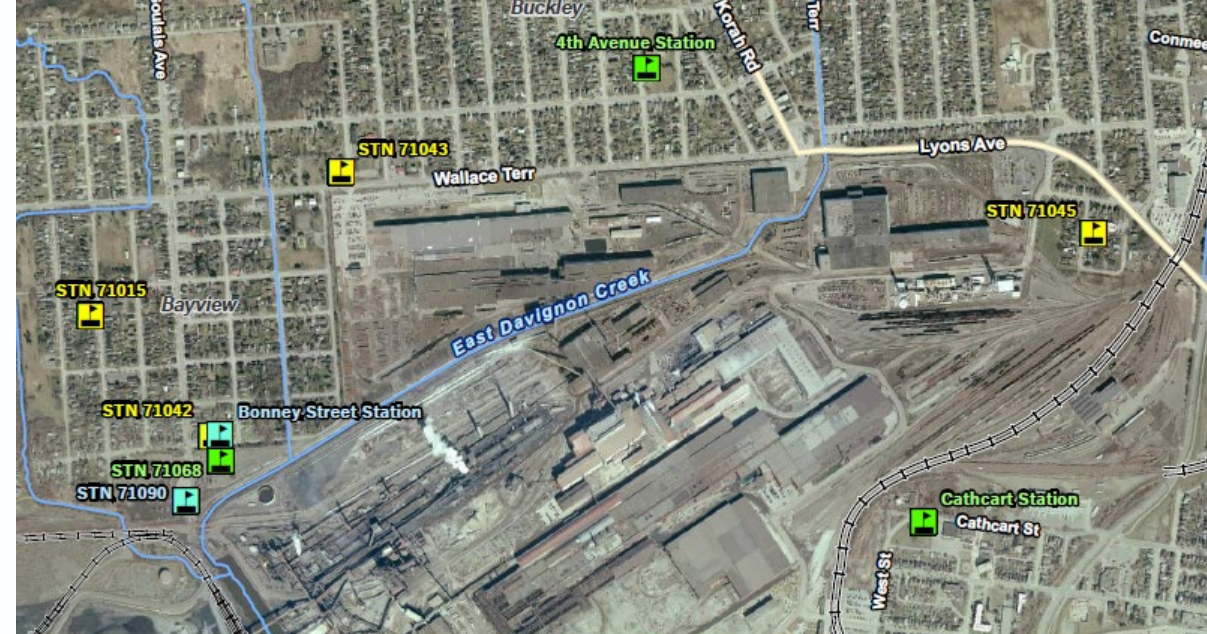
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# Community Air Monitoring

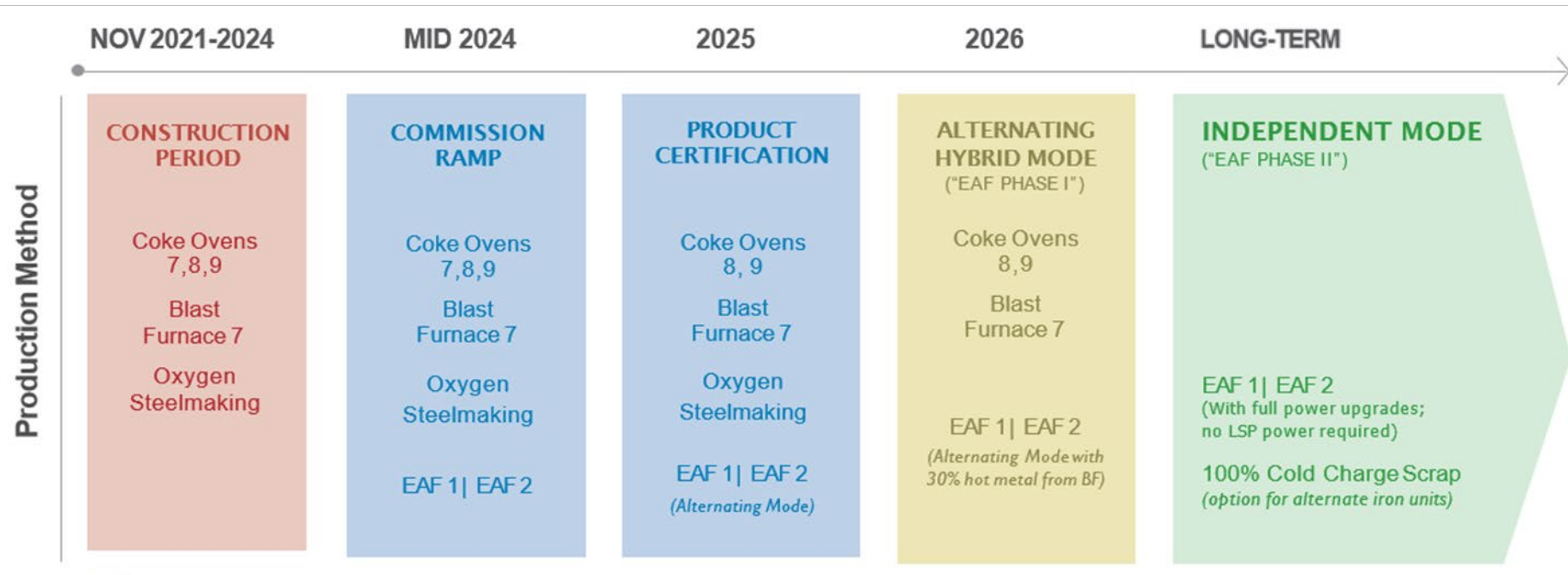
## Algoma's Ambient Air Quality Monitoring Program was expanded in 2022

- Recently expanded AAQMP to include three new permanent community air monitoring stations installed with all new equipment and a new meteorological station which were operational in Dec. 2022
- Stations are located at Bonney St., 4th Avenue and Cathcart St.
- Stations monitor for:
- TRS, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, TSP, Metals, VOC's, PAH's
- Third party provider is working to connect wireless communications of real time monitoring data to Algoma's public website.





# Proposed operational transition to Electric Arc Steelmaking



## Phase I

Operations would alternate arcing on one furnace at a time with approximate 30% hot metal charge from No. 7 Blast Furnace (which is operating at reduced output). Powered by the on-site LSP power generation and excess grid power from the local 230kV transmission upgrade.

## Phase II

Operate both electric arc furnaces simultaneously with 100% cold charge, including obsolete and prime scrap with option for addition of alternate iron units, such as HBI or pig iron as required. Fully powered by the Ontario grid. On-site power generation not required.



*Note: 2025 onwards, No. 7 Blast Furnace will operate at a lower rate.*

Information updated November 23, 2022

The information contained herein may contain "forward-looking information" under applicable Canadian securities legislation and "forward-looking statements" within the meaning of the U.S. Private Securities Litigation Reform Act of 1995 (collectively, "forward forward-looking statements"), including statements regarding Algoma's strategic objectives, position as a leading producer of green steel. Forward-looking statements are predictions, projections and other statements about future events that are based on current expectations and assumptions. Many factors could cause actual future events to differ materially from the forward-looking statements in this document. Readers are cautioned not to put undue reliance on forward-looking statements, and Algoma assumes no obligation and does not intend to update or revise these forward-looking statements, whether as a result of new information, future events, or otherwise. The list of factors is not exhaustive and readers should also consider the other risks and uncertainties set forth in the section entitled "Risk Factors" and "Cautionary Note Regarding Forward-Looking Statements" in Algoma's Annual Report on Form 20-F filed by Algoma with the SEC (available at [www.sec.gov](http://www.sec.gov)) and the Ontario Securities Commission ("OSC") (available under Algoma's SEDAR profile at [www.sedar.com](http://www.sedar.com)), and in Algoma's other public filings with the SEC and the OSC. Forward-looking statements speak only as of the date they are made.



# EAF Construction Update

## Project statistics

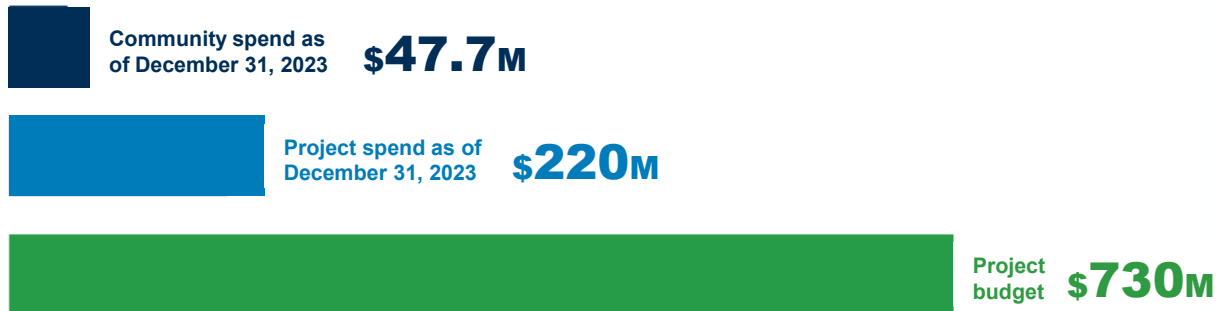
- Concrete poured: 10,500 m<sup>3</sup>
- EAF Building Foundations: 93% complete
- EAF Equipment Piling: 30% complete
- Fume Treatment Plant excavation: 90% complete
- Reinforcing Bar Used: 1,227 NT
- Excavated Material: 53,000 m<sup>3</sup>
- Primary Steel for EAF Building: 13,800 MT
- **Building erection has commenced**





# EAF Construction Update

## By the numbers



### Estimated Spending Breakdown:

- F2022 – 8%
- F2023 – 35%
- F2024 onwards – 57%



(1) Photo taken Dec 20th 2022, featured on the February 2023 issue of the Association for Iron and Steel Technology Plant Services publication  
(2) Project Estimates at Feb 1, 2023



# Installing the First Pieces of Structural Steel

## Celebrating a major milestone

- On February 16, 2023 Premier Ford, Minister Pirie, MPP Romano and Mayor Shoemaker came to Algoma to join the celebration of major milestone in our EAF Transformation Journey; **the installation of the first pieces of structural steel**
- Each column consists of three pieces of structural steel stacked on top of each other stretching 165 feet high. The building will be 1,024 feet long and attach to the existing steel shop when completed.
- Onsite assembly of the building structure is targeted for completion within the year.



# Transition to Electric Arc Furnace Steelmaking

## Applications for Environmental Compliance Approvals

Algoma Steel has submitted applications for the following approvals:

1

Site wide **Environmental Compliance Approval** for **air and noise** based on the planned progressive shutdown of equipment and facilities associated with the transition to electric arc furnace steelmaking. Application to include:

- ▶ Two new EAF exhaust treatment plants including baghouses
  - ▶ A new cooling tower
- 

2

Amendment to the existing **industrial sewage works Environmental Compliance Approval** that incorporates:

- ▶ New recirculating non-contact cooling water system (with a small blowdown to the existing water treatment facility)
- ▶ No new contaminant loading to the existing treatment facility

Over the course of the transition, contaminant loading to the water treatment facility will decrease. Up to five existing effluent discharges and up to 7 existing noise sources will be eliminated.

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# Site Specific Standard Requests

## New Site-Specific Standards will govern the operating transition to electric arc steelmaking

- ▶ In March 2022, Algoma submitted a request for amended site-specific standards for benzene, benzo(a)pyrene, and particulate matter. The new standards will reflect changes to the air emission dispersion model that have resulted in an increase in modeled emissions.
- ▶ Model updates include:
  - Newest model version (province-wide)
  - Data reflecting more recent meteorological conditions
  - Changes to the land use designation from urban to rural to more accurately reflect local land use
- ▶ Algoma's request included a continuous improvement plan that provides for the substantial reduction or elimination of emissions as a result of the progressive shutdown of equipment and facilities in the transition to electric arc steelmaking.
- ▶ Algoma also submitted a new Site Specific Standard application for sulfur dioxide (SO<sub>2</sub>) in order to provide a compliance approach to the new provincial standards coming into force in July 2023. This application includes an action plan to reduce SO<sub>2</sub> which reflects the progressive facility shutdown.

## Public Consultation – Site Specific Standards

A number of plain language summaries of Algoma's Site Specific Standard applications have been made available on our website including the following:

- Site Specific Standard Application Process
- Emission Summary and Dispersion Modelling Report (ESDM)
- Technology Benchmarking Report
- Action Plan
- Algoma Steel Manufacturing Process – Current and Future
- Standards and Emissions

These documents can be found at the following link:

<https://algoma.com/environment/site-specific-standards-applications/>



## Decarbonization Strategy

Algoma continues to evaluate additional opportunities to further decarbonize our operations aligned with the Canadian Steel Industry's aspirational goal of achieving net zero greenhouse gas emissions by 2050.

Algoma is taking a collaborative approach, working with industry peers, federal and provincial stakeholders, research associations and technology providers to develop a decarbonization pathway.

Current technology pathways to decarbonization under evaluation by the Canadian Industry include:

- Utilizing local biomass for fuel substitution
- Process electrification
- Carbon capture, utilization and storage
- Hydrogen based fuel substitution

## Site Greening

Algoma has launched a Site Greening Initiative that includes surface stabilization, ground and surface water management, and revegetation.

The plan includes the **creation of naturalized green buffer strips** along the perimeter of the site by introducing clean soils, creating seasonal surface water ponding areas, and vegetating with select native plants and tree species.

In May Algoma hosted a site tour with project stakeholders to provide physical site context and obtain feedback and recommendations for the project.

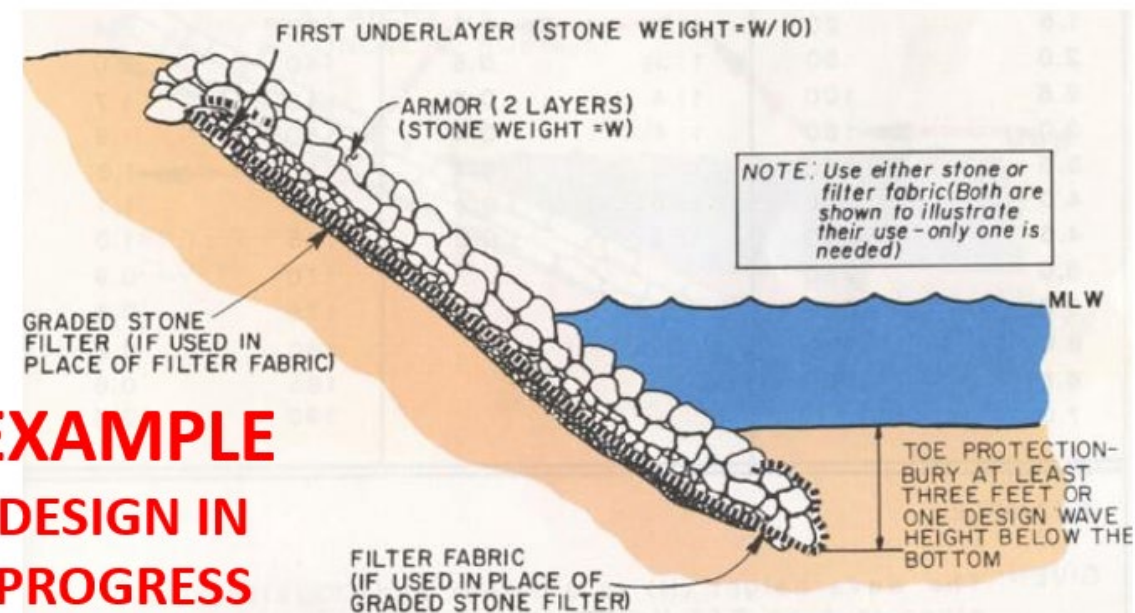


## Shoreline Stabilization

Algoma's shoreline stabilization project is required to support the Site Greening Initiative to ensure that the **naturalized green buffer strips** along the perimeter of the site remain intact and are protected from possible erosion.

The shoreline stabilization project consists of a four year plan to design and implement shoreline protection along the St. Mary's River via the placement of clean rip-rap and armour stone.

Approximately 4.1 km of Algoma's shoreline will be protected from future erosion via shoreline armoring.



**EXAMPLE  
DESIGN IN  
PROGRESS**

Figure B-3 Typical Quarrystone Revetment

## Community Liaison Committee - Next Meetings

Proposed 2023 Schedule:

- March 7th, 2023
- June 6th, 2023
- September 12th, 2023



Thank you

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ABDX	
ABDX1	
BPL-93	
BLT-2-15	