

Community Liaison Committee Meeting #46

Tuesday, Sept 12, 2023





Agenda

- 1. Review of June 6th, 2023 meeting notes
- 2. Membership Items
- 3. Cokemaking Emissions Performance
- 4. Public Complaints
- 5. Electric Arc Steelmaking and Environmental Permit Applications
- 6. Legacy Environmental Action Plan
- 7. 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. Stephanie Seymour 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

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
Jan. 1, 2016	22.5	0.8	15	12 sec	50
Jan. 1, 2017	7	0.8	4.2	12 sec	50
Jan. 1, 2019	7	0.8	4.2	12 sec	40
Jan. 1, 2020 onward	4	0.4	2.5	12 sec	30

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



Cokemaking Emissions Performance





All batteries performing below leak limits



Cokemaking Emissions Performance



Notes:

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

Actions taken to successfully correct pushing opacity



Cokemaking Stack Opacity





Public Complaints

Public complaints received by Algoma since the last CLC include:

- Noise
- Odour
- Particulate

A detailed noise monitoring assessment was conducted and a source has been identified. A mitigation plan is underway.

ALGOMA Proposed Operational Transition to EAF





A phased approach reduces implementation risk:



Phase I

Operations would alternate arcing on one furnace at a time with the potential of using hot metal charge from No. 7 Blast Furnace (which is operating at reduced output). Powered by the on-site power generation and grid power.

Phase II

Operate both electric arc furnaces simultaneously with 100% cold charge, including obsolete and prime scrap with option for addition of virgin iron units, such as HBI, DRI or pig iron as required. Fully powered by the Ontario grid.



Electric Arc Furnace Environmental Controls

Fume Treatment Plants

The fume treatment plants capture air and dust emissions from the process.

Water Treatment Plant

The water treatment plant conserves water usage by recycling non-contact water from the process.

Engineered Furnace Enclosures

These enclosures feature large doors which seal shut before the arcing process begins, containing any sound, sparks or dust particles.





Fume Treatment Plants

Furnace Enclosure





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Algoma's Shrinking Environmental Footprint

Transition to Electric Arc Steelmaking

 Algoma Steel has committed to transition its manufacturing process from the integrated basic oxygen steelmaking route to electric arc steelmaking. This process change will shrink Algoma's environmental footprint dramatically, reducing greenhouse gas emissions by up to 70%⁽¹⁾ and positioning Algoma as one of the leading producers of green steel in North America.

Other benefits include:



		Preliminary Estimated Reduction ^{(1).}	% Reduction
GHG Emissions	C0 ₂ C0 ₂ /NTproduction	3.0 MM tonnes 1.33 tonnes	70% 75%
SOx Emissions		4,060 tonnes	82%
NOx Emissions		1,604 tonnes	52%
Cokemaking Emissions		Complete elimination of Cokemaking Stack and Fugitive Emissions	100%

Note (1): Source: Company information. Expected environmental benefits from the EAF are based on projected estimates for Algoma, using published data sources for similar technologies. Estimated benefits based on current production versus forecasted production of 3.0MM tons of steel shipments produced under full, exclusive EAF configuration.

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 information"), 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 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 Statements in Algoma's





Electric Arc Furnace (EAF) Construction Update

Project Progress

Concrete poured: est. > 15,000m3

EAF Building Foundations est. 99% complete

EAF Equipment Piling - 99% complete

EAF Equipment Foundations - Underway

Fume Treatment Plant excavation and piling complete

Fume Treatment Plant foundations – 75% complete Primary steel for EAF building est. 15,000NT (8,000NT Installed)







Electric Arc Furnace Local Economic Impacts

By the Numbers

Community spend as of June 30, 2023 Local suppliers engaged: 47

> Project spend as of June 30, 2023 Project budget: \$828 - 878M

Creation of 500 construction jobs





Transition to Electric Arc Furnace Steelmaking

Applications for Environmental Compliance Approvals

Algoma Steel has submitted applications for the following approvals:



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



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 facility will decrease. Up to five existing effluent discharges and up to 7 existing noise sources will be eliminated.



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.
- 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 (SO2) in order to provide a compliance approach to the new provincial standards that came into force in July 2023. This application includes an action plan to reduce SO2 which reflects the progressive facility shutdown.
- The applications are currently under review by the Ministry of Environment, Conservation and Parks
- Details of the site specific standard requests can be found on Algoma's website: <u>https://algoma.com/environment/site-</u> <u>specific-standards-applications/</u>



Site Greening

Algoma's site greening project consists of a four year plan to install **4.1 km of shoreline protection** along the St. Mary's River to prevent future erosion.

The project has commenced with slope preparation and the placement of the clean riprap and armour stone.

Once the stone is installed, clean soils will be introduced, creating seasonal surface water ponding areas, and vegetating with select native plants and tree species. This will be done in **collaboration with Sault College.**

The site greening initiative involves the creation of **naturalized green buffer strips** along the perimeter of the site which will be protected from possible erosion.





Community Engagement

Algoma Steel is committed to being a good neighbor

- Exciting collaboration projects with Algoma University and Sault College
- Engagement with Batchewana First Nation, Garden River First Nation and Missanabie Cree
- Quarterly Community Liaison Committee meetings
- \$1M Donation to Northway Wellness Centre
- Annual Employee Campaign with United Way
- > And more!





Community Liaison Committee - Next Meetings

Proposed 2023/24 Schedule:

- December 5th, 2023
- March 12th, 2024
- June 2025

Thank you



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