



## **Notes of Meeting #35 – Algoma Steel Community Liaison Committee**

Date: December 8<sup>th</sup>, 2020

Location: Cisco Webex Meeting

Time: 12pm to 3pm

### **CLC Members in Attendance**

Fred Post – Algoma Steel

Chris Galizia – Algoma Steel

Catherine Taddo – Corporation of the City of Sault Ste. Marie

Lisa Derickx – St. Mary's River RAP Coordinator

Lori Greco - Ministry of Environment, Conservation and Parks (MECP)

David Trowbridge - Public

Peter McLarty – Public

Jillian Marquis – Public

Bruce Gillies – MECP (Guest)

### **CLC Members not in Attendance**

Ron Dorscht – Ministry of Environment, Conservation and Parks (MECP)

Kathie Brosemer – Sault Ste. Marie Tribe of Chippewa Indians

Steve Carey – Chippewa County Health Department

Kara Flannigan – Algoma Public Health

Chris Spooner – Algoma Public Health

Wayne Hubbard – United Steel Workers Local 2251

Jonathon Bouma - Algoma Public Health (alternate)

Dan Sayers Jr. – Batchewana First Nations

Maggie McAuley – Corporation of the City of Sault Ste. Marie

Suzanne Lieurance - Chippewa County Health Department

### **Meeting Notes**

#### **1. Review of the Agenda and Meeting #33 Notes**

There were no new items proposed to be added to the agenda.

David Trowbridge (Public) requested that the names of members and who they represent to be stated in future meeting minutes to have a record of any discussions. There were no other comments regarding the minutes of the September 15<sup>th</sup> CLC meeting. They have been posted on the company website.

#### **2. Membership Items and Terms of Reference**

Wayne Hubbard has assumed the primary CLC member role for Local 2251 and Denis Gagne has assumed the role of Local 2251 alternate.

The original Terms Of Reference (TOR) for the CLC were circulated before the meeting as it is desired to update the document to reflect changes that have occurred since its initial development.

**Questions:**

David Trowbridge - Request that each member update their respective contact lists so that emails between members are not inadvertently directed to SPAM.

David Trowbridge – Not convinced that the community is being kept adequately informed of the CLC discussions.

Fred Post – Algoma posts both the CLC presentations and minutes on the company website, in addition to conducting an annual open house.

Peter McLarty – CLC members should have their contact information included on the company website or in the meeting minutes.

Fred Post – We will consider the privacy implications and report back.

David Trowbridge – The TOR has a 2 year renewal for members. Has anyone indicated they wanted to end their terms?

Fred Post – No one has indicated they wanted to end their terms.

David Trowbridge – The TOR states that CLC meetings should be held twice a year.

Fred Post – Algoma’s Site Specific Standard (SSS) states they should be held quarterly. When the TOR is updated, it will be changed to reflect this.

Catherine Taddo – The city employs an application process for selecting committee members. Algoma might wish to consider using a similar process.

Fred Post – Algoma will look into this process and get back to the committee.

Peter McLarty – Can CLC meetings be open to the press or observers?

Fred Post – This has been discussed in the past but it was decided to limit the meetings to the CLC’s members..

David Trowbridge – Recommend more public notice such as press releases on CLC meetings in order to help make the public more aware of the discussions.

Fred Post – We will take that under consideration. Meeting dates, times, minutes and presentations are all currently posted to the website. An exhibit about the CLC is always also shared at every community open house.

**3. Site Specific Standards / Technical Standards****Site Specific Standard (SSS) for particulate and BaP**

Fred re-capped the standards development process and coke plant rules detailed within the Site Specific Standard (SSS) for particulate that was issued in March 2015.

On July 2<sup>nd</sup> 2015, Algoma began to monitor coke oven emissions in accordance with the site specific standard. The progressive phase in of limits has occurred on an annual basis. A graphic representation of Algoma’s performance was presented along with the new limits taking

effect in January 2020. There has been consistent improvement from all emission sources and Algoma is in compliance with all of the limits.

Chris Galizia noted the increase in charging emissions on No. 9 Battery and outlined the corrective actions taken. It was explained that No. 9 Battery has an IOPC (Individual Oven Pressure Control) system that makes it more susceptible to variables such as suction and coal moisture.

While dry coal was observed and rectified with the addition of water, a loss of suction was noted from the #9 Larry Car. This equipment was temporarily taken out of service while repairs were completed. The repairs were successful and emissions improvements were immediately realized. At no time was the charging emissions limit exceeded.

**Questions:**

Peter McLarty – Can Algoma show pushing opacity performance with a chart?

Chris Galizia – Algoma will prepare a graph for the next CLC meeting.

David Trowbridge – Could an oven push for 30 days after it was observed over the 30% opacity limit? Where did the 30 day correction period come from?

Chris Galizia – Yes, if an oven is audited over 30% opacity then Algoma has 30 days to make an operational adjustment to correct the problem and re-audit that oven below 30% pushing opacity. If an oven is observed over 30% opacity, an inspection of that oven is conducted immediately in order to determine what operational adjustments might be required, and then corrective action is taken.

Chris Galizia – The 30 day period is what is stated in the SSS. This is consistent with steel industry rules in other jurisdictions.

Peter McLarty – How does pushing opacity compare to door leak emissions?

Fred Post – The most important limit in the SSS is door emissions because they contribute approximately 80% of the BaP emissions from coke batteries, followed by off-take leaks. Pushing emissions generally contain particulate from dry coal dust and are generally not associated with the same level of BaP. The level of pushing opacity is not related to door leaks.

**Stack Opacity**

Two graphs were provided showing the coke stack opacity performance for the past year. One graph shows the percent of total opacity in a 30 day rolling average to depict the overall performance trends, while the other graph shows the 30 day rolling average duration of opacity greater than 20 percent. This issue continues to be a challenge and the company is working with the MECP to develop a detailed action plan to reduce opacity.

A summary of the actions currently underway was provided as they relate to the two primary contributors to stack opacity: Masonry and Combustion. The initial primary focus will be on #7 battery since it has the highest opacity, however, a number of these initiatives are also being undertaken on #8 & #9 batteries.

Masonry: Numerous actions are underway to replace aging infrastructure and thoroughly inspect and repair oven masonry conditions. These actions include replacing through walls, repairing or rebuilding end flues and outer regenerator brick and ceramic welding. Three through walls were replaced on #9 battery in the fall and more are being planned for 2021.

A new initiative underway to reduce stack opacity is a comprehensive Preventative Oven Maintenance (POM) program. The POM program includes extensive oven wall assessment and ceramic welding on refractory, repairing charge holes, jambs, buck stays, inner & outer frame packs and floor flooding followed by oven pressure testing to ensure effectiveness and then oven dusting.

Another new initiative to control stack opacity is conducting trials with a new oven dusting technology beginning on #8&9 batteries and progressively following the POM plan. This process involves injecting a misting product into a pressurized oven. The pressure forces the mist into micro-cracks in the refractory where it adheres and seals

These masonry related actions will undoubtedly minimize gas leakage from the ovens to flues and reduce stack opacity.

Combustion: A thorough and methodical gas system inspection and correction program has commenced. New tar precipitators were installed to remove residual tar mist from coke oven gas. This ensures clean gas is available for combustion and minimizes fouling and gas flow restrictions throughout the gas supply system. The #7 battery preheater was replaced and gas manifolds cleaned to remove debris and tar mist related obstructions. Header and bus flue cleaning is underway to improve gas flow to the oven flues. Additional efforts to improve combustion include sealing of the pant leg to control tramp air ingress followed by mushroom sealing to better control combustion air intake and improve overall combustion efficiency. After optimizing clean gas flow and combustion air intake, quadrant combustion settings will be re-set for each individual oven.

These actions will ensure clean gas is supplied, unrestricted to the batteries, allowing optimal combustion control and improving overall battery heating and stack opacity.

**Questions:**

Peter McLarty – What is the long term plan for No. 7 Battery? Any improvements should be highlighted.

Fred Post – Outside of the measures mentioned, long term actions involve either replacing through walls which cannot be repaired or replacing No. 7 Battery, both of which require extensive investment.

Peter McLarty – Algoma Steel’s website shows a commitment of a \$300 million investment in the modernization of its facilities. Is this money being invested in improving stack opacity?

Fred Post – This commitment was for a number of investments at the facility, some of which were through walls on the coke batteries.

David Trowbridge – No. 7 Battery is out of compliance the majority of the time. How is the 20% opacity limit determined?

Fred Post – The limit is 20% opacity for 6 consecutive minutes, and multiple occurrences per day can be counted as one occurrence on each coke oven battery for each day.

Lori Greco – The MECPP has requested an improvement plan for stack opacity.

David Trowbridge – Why are there no consequences for being above the 20% opacity limit?

Fred Post – The MECP has indicated that in the past, priority was to focus on ground level fugitive emissions from the coke batteries because they contain more hazardous contaminants such as BaP and those contaminants represent a greater risk to the community. These emissions began being regulated by the SSS in 2015 with progressive annual limit reductions. The stack opacity emissions have much less of an impact on the community; contaminants are less harmful and are further from the community due to dispersion. Now that the most stringent SSS leak limits have been met, the MECP is turning greater attention to reducing stack opacity.

Peter McLarty – It would be beneficial to better communicate actions to reduce stack emissions. Online research has not yielded much detail regarding what contaminants are contained in stack emissions nor is there much in the way of other new technology for mitigating stack opacity.

Fred Post – Algoma continues to research ways of mitigating stack opacity, however there are limitations with current technology. Algoma is taking an approach similar to the entire steel industry, and the oven dusting technology that is being trialed is the most current.

### **Particulate and Benzene Site Specific Standards**

The MECP has posted proposals to extend the expiry dates for 12 site-specific standards for six facilities in Hamilton, Nanticoke and Sault Ste. Marie in the integrated iron and steel sector. Extending the expiry dates of the existing site specific standards until June 30, 2023 will give enough time for an integrated iron and steel sector technical standard to be published and companies to be registered. The proposals have been posted to the Environmental Registry for a 45-day consultation period ending December 14, 2020.

An existing Order requires installation of a vapor collection and air pollution control device for certain air emissions sources by December 31st, 2020. A one year deferral request to December 31st, 2021 was submitted by Algoma Steel to the MECP due to the extenuating circumstances surrounding the COVID-19 pandemic. The proposal to amend the Order to extend the completion date of benzene emission controls until December 31, 2021, has been posted on the Environmental Registry for a 45-day consultation period ending December 20, 2020.

### **Questions:**

David Trowbridge – Why does Algoma need a SSS for 127 ug/m<sup>3</sup> when their ESDM indicates that they achieved 116 ug/m<sup>3</sup> last year?

Fred Post – The ESDM used to submit the application for the SSS is based on modeled maximum production capacity of all facilities operating simultaneously whereas the annual ESDM summary is based on actual production and emission performance for the previous year.

David Trowbridge – Why is the MECP allowing the integrated iron and steel sector to exceed the limits?

Bruce Gillies – Air standards are set at levels where there would be no adverse effect on health. While Algoma is above the O.Reg.419 standard for benzene, they have approval for a site-specific standard and they are still within the negligible risk threshold.

David Trowbridge – Regarding benzene emissions, the current SSS approval says Algoma will achieve 2.2, however the current ESDM says they are at 4.7 ug/m<sup>3</sup>. The extension of the Order defers the installations until the end of 2021. Will Algoma still achieve the 2.2 ug/m<sup>3</sup>?

Fred Post – The 2.2 ug/m<sup>3</sup> was based on implementing controls on all remaining sources. It is therefore likely that Algoma will not achieve the 2.2 ug/m<sup>3</sup> until those projects are complete.

David Trowbridge – Why would air standards be set if they cannot be achieved?

Bruce Gillies - The MECP made a decision to set air standards at levels where there would be no adverse effect on health. This allows industries that can meet them to do so without any additional work needed. Where facilities can't meet the standards, SSS's provide facilities a compliance option while also ensuring continuous improvements are being made.

David Trowbridge – Algoma could potentially be at the same levels for the next 2 years. What is the rationale for this?

Bruce Gillies – The extension will allow enough time for a technical standard to be developed and for facilities to register.

Fred Post – The SSS's came into effect in 2015 and limits on coke oven leak rates were progressively phased in over the subsequent five years. The most stringent leak rate limits just came into effect in 2020 and Algoma is in compliance. These limits were determined to be the best available controls which are the same limits that are in place in the USA. The Technical Standard development process will evaluate if additional technologies or practices become available to further reduce emissions from existing facilities.

David Trowbridge – There was a press release yesterday where the US EPA was reducing the limits for particulate matter less than 2.5 microns (PM<sub>2.5</sub>) from 12 ug/m<sup>3</sup> to 9 ug/m<sup>3</sup>. The USA has half of Ontario's limit for PM<sub>2.5</sub>. Why is PM<sub>2.5</sub> not being regulated by the MECP?

Fred Post – This was discussed at a previous CLC meeting where Scott Grant from the MECP explained that PM<sub>2.5</sub> forms as a result of multiple other contaminants in the atmosphere including but not limited to NO<sub>x</sub> and SO<sub>x</sub>. It is impossible to regulate PM<sub>2.5</sub> as a whole without regulating the contaminants that form it. Therefore the MECP's approach is to regulate each of these contaminants separately.

### **Industry / Technical / Site Specific Standard**

The MECP has commenced discussions with the iron and steel sector on new Industry / Technical / Site Specific Standards for multiple air contaminants that will replace the existing Standards when they expire. The process is led by the MECP and is expected to take a total of 3-4 years to develop the new technical standards. The MECP conducted a site visit and accepted the monitoring program proposals for benzene and metals which may be used to inform if/or where future controls may be required. The Benzene Air Monitoring Program and the Metals Air Monitoring Program which commenced in August, 2018 are both complete.

The ten week benzene air monitoring program was completed in fall 2018 in the by-product area to look for potential benzene sources not currently controlled. Three sources were identified and control actions were implemented and are now complete.

The one year ambient air monitoring program commenced in August 2018 and was completed in August 2019 to measure suspended particulate matter and metals (Iron, Chromium VI, Manganese and Nickel). Hexavalent chromium sample results were below precise laboratory detection limits at all locations. Iron and nickel results also did not indicate any concern. Measurements of manganese concentrations were elevated at some locations. The industry standard aims to further investigate sources of manganese such as on-site roadways, steelmaking and slag management and implement additional control measures.

The next steps involve participating in MECP led working groups to focus on the topics as outlined.

- Fugitive metal/particulate emissions from on-site roadways; steel-making; slag management;
- Identifying managed sources – current emission sources and air pollution controls;
- Expanding Leak Detection And Repair (LDAR) programs in by-product plants for benzene;
- Coke oven gas de-sulphurization (Federally required by January 1, 2026);
- Development of an Ontario-based emission auditor training and certification program;
- Completing a jurisdictional review of best available emission control techniques globally;
- Industry economic overview and economic feasibility assessment (industry led);
- Development of trigger mechanisms to facilitate a review of the appropriateness of the Technical Standard every 7-8 years.

**Questions:**

David Trowbridge – The MECP has accepted the request for community members to participate in the Technical Standard Working Group subcommittees, but we have not had any meetings to date. Is there an update from the MECP for the working groups?

Bruce Gillies – There is no significant update on the working group or subcommittees. The MECP is drafting a rationale document for all participants in the working group. It is unknown when this will be released.

**4. Current and planned activities that require Environmental Compliance Approval (ECA) application**

Algoma has submitted an application for an amendment to an existing ECA for its #2 Ladle Metallurgy Furnace (LMF) to install a larger baghouse than the existing approval to improve capture efficiency at both Ladle Metallurgy treatment stations and the Basic Oxygen Furnaces. The MECP had recently provided Algoma with a draft approval for review prior to finalizing.

**Questions:**

Jillian Marquis – How long will this process take?

Fred Post – The LMF and baghouse are almost completely built, with an expected completion in February 2021 and commissioning shortly thereafter.

**5. Legacy Environmental Action Plan**

In fall 2018 upon exiting CCAA, the MECP and Algoma Steel signed an Environmental Framework Agreement which was established to mitigate risk from on-site legacy environmental liabilities. The Environmental Framework Agreement and the associated Program Approval are the legal instruments which have initiated the development of the Legacy Environmental Action Plan (LEAP). The LEAP is a risk-based environmental management plan maintained and funded by Algoma Steel, with the objectives of identifying, assessing, managing and mitigating off-site adverse environmental effects caused by legacy environmental contamination at the site. The MECP has oversight, review and approval responsibilities for LEAP budget, plans and activities, including approval (or pre-approval) of eligible LEAP expenses.

Algoma has indicated that due to impacts related to the Covid-19 pandemic, the scope of the 2020 projects have been reduced and some deferred to 2021. Approximately \$2 million in projects were completed in 2020 including the following:

- Expanding the site wide baseline hydrogeological investigation – (Complete)
  - 37 new wells added this year
- Legacy Tire Disposal
  - 1055 metric tonnes removed and recycled – Complete)
- Engineering for re-routing blast furnace 30" sewer (Complete)
- Refurbish #7 Tank for future Groundwater Collection System
  - Includes clean-out of legacy light oil residues, new floor and benzene emission control system – (50% Complete)
- Carbon capture and storage testing – (Underway)
- Extrusion briquetting testing – (Underway)
- Boat Slip Sediment Study to support the St. Mary's River Remedial Action Plan's delisting criteria for the Degradation of Benthos Beneficial Use Impairment – (Underway)

## 6. Climate Change

A brief description was provided of three greenhouse gas reduction projects that are either complete or underway at Algoma (two are complete). The three projects are anticipated to reduce GHG emissions by approximately 79,000 tonnes annually which is approximately 2% of Algoma's emissions. Further projects are being investigated as the company continues to seek out further incremental reductions.

On August 18<sup>th</sup>, 2020 the Government of Canada announced funding support through the Low Carbon Economy Fund for up to \$4M to help refurbish Algoma Steel's tar and light oil plant. This project is expected to result in a 21,000 tonne reduction in our annual greenhouse gas emissions. Greenhouse gas reductions will be achieved by the use of new electrostatic tar precipitators and light oil scrubbers which will remove tar and light oil from the coke oven gas so they will not be combusted. Instead of releasing GHG emissions, these by-products will be recovered and sold for use in the chemical industry. It was noted that as per the previous discussion regarding stack opacity, the new tar precipitators have been installed.

As a member of the Canadian Steel Producers Association we aspire to achieve net-zero carbon emissions by 2050. We believe that by working with government and other stakeholders to secure the necessary capital and partnerships, that together we can achieve breakthrough technological advancements and enact transformational change. The Canadian Steel Producers Association's Climate Change Call to Action can be viewed at the following link: [https://canadiansteel.ca/files/resources/CSPA\\_2\\_29\\_compressed.pdf](https://canadiansteel.ca/files/resources/CSPA_2_29_compressed.pdf).

### Questions:

David Trowbridge – What has happened to the cap and trade program?

Fred Post – The current provincial government revoked the Cap and Trade regulations and the province has proposed a new regulation with revised GHG Emissions Performance Standards. The federal government recently announced its acceptance of Ontario's regulatory approach and is planning to allow the province to regulate Ontario emitters, potentially as early as Jan 1, 2021.

David Trowbridge – Did Algoma get any allowances under the cap and trade program?

Fred Post – No. There were no allowances granted before the Cap and Trade regulations were revoked.

## 7. Public Complaints



Public complaints regarding particulate, odour and noise from the last quarter were noted. There was a public complaint regarding particulate in August that originated from the lime plant. There was an incident at the lime plant and the facility was shut down for repairs. The MECP issued an order for the incident which has been complied with. The company is implementing a more robust area specific environmental and incident reporting training program to ensure all personnel are aware of their responsibility to report.

A heavy haze was reported on December 7<sup>th</sup> in Sault Ste. Marie and the surrounding area. Personnel evaluated the site in response to the reports and no visible emissions were observed from Algoma Steel. Further investigation of meteorological conditions and video footage at Algoma Steel indicated that no process upsets or visible emissions occurred which could have contributed to this event. A similar haze was observed in Sylvan Valley and Richards Landing, however meteorological conditions suggested that the source may have been from the US side of the boarder. The investigation did not identify a definitive source of the haze.

**Questions:**

Peter McLarty – The current process upset table is not very helpful since most of the incidents and corrective actions are identical.

Jillian Marquis – Many of the incidents being reported have the same corrective actions.

Fred Post – Algoma personnel recognized an opportunity to improve incident reporting and have embarked on the development of a new incident reporting system. It is anticipated that the roll out of the new reporting system and the associated employee training program will begin in the first quarter of 2021.

**8. Public Open House**

The last Public Open House was held on December 10<sup>th</sup>, 2019 from 4-7pm at the Northern Community Centre.

After due consideration and consultation with Algoma Public Health, Algoma has requested a deferral of the 2020 open house due to the COVID-19 pandemic. The public health risk of an interactive, in-person event was deemed to be too high at this time.

**Questions:**

David Trowbridge – A press release on Algoma’s environmental performance could be beneficial due to the cancelation of the open house.

Fred Post – Algoma is exploring alternate ways to provide an update on our environmental management program.

**9. Next Meeting**

The next tentative CLC meeting schedule is as follows:

- March 9<sup>th</sup>, 2021
- June 8<sup>th</sup>, 2021
- Sept 14<sup>th</sup>, 2021
- Dec 14<sup>th</sup>, 2021

The meeting adjourned at 3:00 PM, December 8<sup>th</sup>, 2020.

February 1<sup>st</sup>, 2021

**Current Members and Alternates**

<b>Representation</b>	<b>Primary Member</b>	<b>Alternate</b>
Algoma Steel	Fred Post	Chris Galizia
Ministry of Environment, Conservation and Parks		
	Lori Greco	Ron Dorscht
Public	David Trowbridge	Peter McLarty
Public	Jillian Marquis	
SSM Tribe of Chippewa Indians	Kathie Brosemer	
Algoma Public Health	Kara Flannigan	Chris Spooney
Chippewa County Health Dept.	Steve Carey	Suzanne Lieurance
Batchewana First Nations	Dan Sayers Jr.	
City of Sault Ste. Marie	Catherine Taddo	Maggie McAuley
United Steel Workers Local 2251	Wayne Hubbard	Denis Gagne
St. Mary's River RAP Coordinator	Lisa Derickx	