



Notes of Meeting #37 – Algoma Steel Community Liaison Committee

Date: June 8th, 2021

Location: Teams Meeting

Time: 12pm to 3pm

CLC Members in Attendance

Fred Post – Algoma Steel

Chris Galizia – Algoma Steel

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

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

David Trowbridge - Public

Peter McLarty – Public

Jillian Marquis – Public

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

Lisa Derickx – St. Mary's River RAP Coordinator

Kathie Brosemer – Sault Ste. Marie Tribe of Chippewa Indians

Melissa Francella – Algoma Public Health

Dennis Gagne – United Steel Workers Local 2251

CLC Members not in Attendance

Chris Spooney – Algoma Public Health

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

Steve Carey – Chippewa County Health Dept.

Wayne Hubbard – United Steel Workers Local 2251

Meeting Notes

1. Review of the Agenda and Meeting #36 Notes

The were no comments regarding the prior meeting minutes.

Prior to the meeting, David Trowbridge, on behalf of the public members, had raised some questions via email and they were discussed throughout the course of the meeting. There were no additional items proposed to be added to the agenda.

2. Membership Items and Terms of Reference

Melissa Francella has replaced Kara Flannigan as the representative of Algoma Public Health.

Fred Post stated that Algoma will post in the local news when seeking new public members and alternates.

The original Terms of Reference (TOR) for the CLC were updated and circulated prior to the meeting and included member feedback. The updated TOR was tabled and accepted by all in attendance. The TOR will be posted on Algoma's website.

3. Update on Merger and Public Market

On May 24, 2021 – Algoma Steel and Legato Merger Corp. Signed a Definitive Merger Agreement. The merger is an important step in Algoma Steel's transformation into a more sustainable company, demonstrating we are increasingly stable and investment worthy. This transformation will competitively position Algoma Steel on a platform for growth and profitability. Legato Merger Corp is a publicly-listed special purpose acquisition company (SPAC) (Nasdaq:LEGO). The transaction brings capital into the company for strategic investments, including the potential for a substantial investment in electric arc steelmaking which would enhance earnings potential and substantially reduce Algoma's greenhouse gas emissions by approximately 70%. Upon closing, the merged entity will be a Canadian company, listed both in Canada (TSE) and in the US (Nasdaq).

Questions:

David Trowbridge – What would be the expected power demand for an EAF?

Fred Post – It is expected to be in the range of 400 MW.

David Trowbridge – Can the grid provide this power demand?

Fred Post – We would have sufficient supply for one furnace. We are working with the province on understanding the capacity of the current grid.

David Trowbridge – Will the cogen facility be used?

Fred Post – The cogen is owned by Essar Power Canada and uses by-product fuels. However, the natural gas power plant on site could be used as a transition option.

Peter McLarty – What is the anticipated cost and timeframe and how is Algoma going to finance the project?

Fred Post – Details regarding cost and timelines cannot be disclosed at this time.

Ron Dorscht – Does the Algoma board have a decision date?

Fred Post – I do not have this information.

David Trowbridge – Will the Cokemaking facilities remain?

Fred Post – No. The proposed project will be a complete conversion from integrated steelmaking to EAF steelmaking. However there will be a transition stage where both integrated and EAF facilities operate simultaneously.

David Trowbridge – Who is Legato?

Fred Post – They are a special purpose acquisition company that will be taking over ownership of a portion of the equity holdings from current shareholders. The public listing will bring new capital for strategic investments.

Peter McLarty – Legato will want money, not steel. The cyclical nature of the steel industry is worrisome.

David Trowbridge – Transitioning to an EAF and the resulting GHG reduction is a big incentive for the steel industry in Canada.

Fred Post – Yes, Algoma is the second largest GHG emitter in Ontario and the 12th largest emitter of GHG in Canada, with the other integrated producers in the same range.

David Trowbridge – This previously would have been a large source of carbon credits. Is there any benefit for Algoma in terms of carbon credits?

Fred Post – That is correct. Algoma is currently working with the federal and provincial governments to determine an appropriate path forward that recognizes the large scale GHG reduction that this project would achieve.

Lisa Derickx – Will the merger have any impact on the LEAP projects?

Fred Post – No.

4. Site Specific Standards (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, and the MECP's rationale for extending their expiry until June 2023.

On March 27th, 2015 Algoma received a Site Specific Standard (SSS) for Particulate which sets specific emission limits in cokemaking. Expiry of the SSS has since been extended to June 2023 to allow enough time for a technical standard to be developed and for facilities to register. The rules and leak limits remain the same, but have been incorporated into a cokemaking Environmental Compliance Approval.

A graphic representation of Algoma's performance was presented showing there has been consistent improvement from all emission sources and Algoma is in compliance with all of the limits. Since 2017 the average pushing opacity of all the pushes has been decreasing, despite an increase in coke production.

Questions:

David Trowbridge – Regulatory limits may not be achievable and are not being enforced. Algoma might be meeting the SSS limits, but the regulatory limits for BaP and benzene are set well below that and are not being achieved.

Fred Post – The regulatory limits are very conservative health based standards. The MECP uses a conservative risk-based approach that considers a 1 in a million risk tolerance over a lifetime of continuous exposure to that concentration. The new limits in the regulation were established in 2010 and came into force in 2016, which is why the SSS's were developed and came into force on July 2nd 2015. The SSS's are based on the best available control techniques to reduce emissions from coke batteries which is why the Ministry chose to enforce them in the SSS's. By complying with the SSS, facilities are in compliance with the regulation. A SSS ensures the reduction in emissions by following the best available control measures and allows a facility to continue to operate in compliance.

Ron Dorscht – The graphs show there has been an increase recently in stand pipe leaks.

Chris Galizia – Yes, we have had some recent issues with dip tube leaks on 9 Battery that have been corrected, and an ongoing issue with a water line used to seal pipe lids on 7 Battery. However, we are still within compliance.

Fred Post – David had previously asked for me to discuss the modelling process and how compares to the community monitoring. Ontario’s air quality regulation requires facilities to model their emissions to demonstrate compliance to the standards. The process is very conservative in that it uses the maximum worst case point of impingement concentrations for each contaminant to demonstrate compliance. Algoma has made numerous comparisons between the monitored results and the model. One of the most thorough of these comparisons was conducted between 2011 and 2013 where sampling equipment was set out when specific wind directions and speeds were predicted to occur for a consistent period of time. Samplers were set out up wind, at source and down wind of the coke oven batteries and the results were statistically compared against the model. The results of the assessment demonstrated good alignment between the model and the monitor. Other assessments have yielded similar results.

David Trowbridge – When auditing, how does an auditor determine which ovens to audit?

Chris Galizia – As discussed previously Algoma uses a third party to perform audits in accordance with the requirements of the Site Specific Standard which requires the use of US EPA Method 303 and Method 9. The auditors don’t have a predefined list of ovens to audit – they generally audit pushes whenever they are occurring. However, Algoma will frequently provide a list of ovens that may need to be re-audited after operational adjustments have been made to confirm that the adjustments have been effective at reducing push opacity. There is also a requirement for each oven to be audited within a 90 day period. Since the push cycle can often be at or near 24 hours some ovens may consistently push at night and are not available for auditing. We have a list of ovens that may be approaching the 90 day limit and we can advise the auditors if or when these ovens will be available to audit during daylight hours.

David Trowbridge – What is the frequency of MECP auditing?

Lori Greco – MECP performs regular inspections but Covid has impacted that recently.

5. 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. Opacity continues to be a challenge and the company is working with the MECP to develop a detailed improvement action plan.

Both graphs show an improvement in the last quarter, with #7 Battery showing the largest improvement. After the improvements in the prior quarter, we experienced some regression on #7 stack and have since corrected the problem and the opacity trend is improving. It is anticipated that the opacity will fluctuate, but overall the trend will improve as a result of the initiatives underway to reduce it.

Algoma has committed to continually reduce opacity through a number of actions addressing oven 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.

Questions:

David Trowbridge – Is the 20% stack opacity limit health based? Is it obtainable?

Ron Dorscht – MECP is not pleased with stack performance and is driving for change. If there was a solution it would have been done by now. The SSS was the more important target to meet in the past. The MECP is looking closely at what opacity actually means in terms of risk to the community. For example, what does 40% opacity for 20 hours actually mean in terms of criteria air contaminant releases and what does that result in at ground level?

Fred Post – We have recently been conducting some modelling assessments at the request of MECP to try to answer that question. We use emission factors in our model from the USA which are based on a number of historic source tests from coke stacks. We conducted a modelling trial to see what the impact would be when we doubled the emission factors from our coke stacks and the results showed a negligible change in the maximum point of impingement concentrations. The reason is that there is significant dispersion associated with stacks and the concentrations of contaminants in the emission factors is relatively low. Algoma is continuing to undertake numerous actions to continue to reduce stack opacity, but most notably, we are continuing with thru wall replacements on #9 Battery and adjusting the burning cycles on #7 Battery. We have also reduced the fuel rate on #7 Battery which has shown some positive improvements and also a significant loss of coke production.

Fred Post – We are committed to reducing our stack opacity and our performance is trending in the right direction.

6. Technical Standard

The MECP has commenced discussions with the iron and steel sector on a new Technical Standard for multiple air contaminants that will replace the existing Site Specific 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 process is moving along with an expected Technical Standard availability date near the end of 2022 which will provide facilities time to register by June 2023 when the new standard will come into effect. The MECP hosted a meeting on April 25th to review the draft standard. Follow up meetings have been planned with the community and stakeholders.

Questions:

David Trowbridge – David briefly explained the how different working groups are coming together for the technical standard. However it is recognized that some facilities might apply for a Site Specific Standard and others might register to the technical standard.

Fred Post – We understand the MECP is looking to provide a consistent regulatory approach for all facilities and therefore even SSS's would be quite similar to the Technical Standard with some site specific caveats.

7. Environmental Compliance Approval (ECA)

No new ECA applications have been submitted, and none are outstanding. The amendment to an existing ECA for the #2 Ladle Metallurgy Furnace (LMF) to install a larger baghouse than the existing one has been finalized. This will improve capture efficiency at both Ladle Metallurgy treatment stations and the Basic Oxygen Furnaces. The #2 LMF was commissioned at the end of February with no visible emissions.

The MECP is proposing to amend the Benzene Emissions Control ECA to include new leak detection and repair (LDAR) requirements which will be implemented this calendar year. Algoma has engaged with a third party to perform the initial audit.

Questions:

David Trowbridge – Will the LDAR affect the SSS?

Fred Post – No, this is just an additional layer of monitoring.

8. 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.

\$4.4 million in projects are planned for 2021 including the following:

- Refurbish #7 Tank for future Groundwater Collection System (Underway)
- Design Base Line Road Ditch Water Treatment Facility (Underway)
- Carbon capture and storage testing (Underway)
- Extrusion briquetting testing (Underway)
- Boat Slip Sediment Study to develop a rehabilitation target for sediment quality criteria (Underway)
- Expanding the site wide baseline hydrogeological investigation (Underway)
- Design Oil Water Separator and Groundwater Collection System (Underway)
- Design Dirt / Oil / Water Separator for Vacuum Truck Dumping (Underway)
- Designing groundwater collection and treatment systems (Underway)
- Tank Bottom Clean-out (#1 & #5 Tanks) (Planned)
- Surface stabilization, ground and surface water management and revegetation including tree planting along the property perimeter and waterfront (Underway)

Questions:

David Trowbridge – What is the scale of the carbon capture and storage?

Fred Post – We are conducting lab scale trials with some byproduct materials to determine the potential for carbon capture and storage. Some of the byproducts include our steelmaking slags and lime plant dusts. The lime in slag (CaO) naturally forms calcium carbonate and we are looking to better quantify the potential for this capture. There are other potential benefits including neutralization/leachate mitigation and the creation of an aggregate. There may be a potential of over 20,000 tonnes per year of carbon capture.

Lisa Derickx – Can you provide an update on the boat slip?

Fred Post – Last fall a new sediment study commenced which aims to determine the appropriate remediation target for the sediment. The study is a toxicity based assessment which uses numerous key benthic invertebrate species to determine what an acceptable rehabilitation target should be. The final report is expected this fall and will be used to inform future dredging activities which may be conducted as early as summer of 2022.

9. Public Complaints

Public complaints regarding odour and noise from the last quarter were noted. There was a public complaint regarding noise that originated from the Blast Furnace. A second complaint was received regarding odour, for which Algoma was not able to identify a source.

Peter McLarty shared his screen showing pictures of emissions and flames from the cokemaking process.

Questions:

Peter McLarty – I observed emissions and flames from the cokemaking process and I would like to know more about why this happens and whether spill reports are submitted for these emissions?

Fred Post – The flames that you observed are not abnormal. One of the photos that you shared was a pushing emission and a spill report was submitted for that incident. However, the flames that you observed are a normal part of the process. Those flames are coming from the standpipes on coke ovens that were being prepared to push. Before pushing an oven a damper between the pipe and the collecting main is closed or “dampened off” to prevent oxygen from entering the gas collector main. That is a safety requirement to ensure there is not an explosive gas mixture inside the gas main. The next step is to open the standpipe lid and a charge hole lid in order to ignite the gas and destroy any contaminants present in the gas. Once lit, there will be visible flames at the top of the standpipe until the oven is pushed. Typically operators damper off three ovens in advance of the push which is why you observed multiple flames. Coke oven gas is typically combusted across many areas of the facility including coke batteries, reheat furnaces, the boiler house and the cogen. The only difference is that those flames are contained within the process whereas the standpipe flames are visible outdoors.

10. Next Meeting

The next tentative CLC meeting schedule is as follows:

- Sept 14th, 2021
- Dec 14th, 2021

The meeting adjourned at 3:00 PM, June 8th, 2021.

*Meeting notes prepared by Chris Galizia and Fred Post
July 20th, 2021*

Current Members and Alternates

Representation	Primary Member	Alternate
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	Melissa Francella	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	