



Notes of Meeting #36 – Algoma Steel Community Liaison Committee

Date: March 16th, 2021

Location: Cisco Webex 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

Steve Carey – Chippewa County Health Dept.

Dean Law – United Steel Workers Local 2251

Dennis Gagne – United Steel Workers Local 2251

CLC Members not in Attendance

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

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 #35 Notes

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

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 will be tabled for acceptance when more CLC members are present. The TOR will be posted on Algoma's website after acceptance.

3. 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.

As requested in previous CLC meetings, new graphs for pushing opacity were created, providing more detail on pushing performance. Chris Galizia explained that while ovens occasionally push above the 30% average opacity limit, triggering the need for operational adjustments, the vast majority of pushes are below 30% average opacity. Also, since 2017 the average pushing opacity of all the pushes has been decreasing, despite an increase in coke production. It was also noted that data for the year 2015 begins on July 2nd when the SSS came into force and data for 2021 includes only January and February.

Questions:

David Trowbridge – How long does it typically take for a corrective action to be performed after a push above the average opacity limit?

Chris Galizia – Most operational adjustments are made within the first few days as the Heater operator will make an adjustment to the temperature of the oven. Re-observations are made as operational adjustments are made and ovens are generally re-observed in compliance within the first week or so after the initial observation.

Peter McLarty – Are audited pushes greater than 30% average opacity reported on the Process Upset Table and how are the measurements taken: manually or automatic? What PPE afforded to workers in the area?

Fred Post – The auditors follow USEPA Method 9 when auditing pushing opacity. A push with an average opacity greater than 30% does not equate to a process upset and therefore may not be reported in the process upset table. The process upset table generally references emissions that would be visible from outside of the facility that have been observed and reported by operations personnel. Employees and contractors working on-site adhere to the Occupational Health and Safety Act and are equipped with the appropriate personal protective equipment.

Peter McLarty – Could there be pushes exceeding 30% average opacity but not noted on our pushing graphs?

Chris Galizia – The pushing graphs only contain data from audited pushes.

David Trowbridge – How is pushing opacity regulated? For example, how are ovens selected to be audited and what records/reporting requirements are there for pushing?

Fred Post – Algoma uses a third party to perform emission audits in accordance with the requirements of the Site Specific Standard which requires the use of US EPA Method 303 and

Method 9. Auditors generally audit at random in addition to ovens that are being re-audited after corrective actions have been made. Downtime from maintenance or breakdowns and the pushing time of day can influence what ovens are available to audit.

Chris Galizia – Ovens typically push on close to a 24 hour cycle meaning often ovens are repeatedly pushing at the same time of day or night for extended periods of time, which may limit a particular oven's availability to be audited during daylight hours. When this occurs, attempts are made to audit different ovens as there is no value in auditing the same ovens every day. Additionally, there is a requirement to ensure all ovens are audited at least once in a 90 day period.

4. 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 are showing an improvement in the last quarter, with #7 battery showing some of the lowest stack opacity in years. It is anticipated that the opacity will fluctuate, but overall the trend will go down 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:

The public members of the CLC submitted some questions prior to the meeting regarding quantification and qualification of stack opacity.

Peter McLarty – Is there a way to quantify the emissions coming from the stacks? Modelling is used, but there are no measured values.

Fred Post – Stack opacity will always be a challenge and it might not be possible to be in compliance 100% of the time with the existing batteries. However, we are expecting positive results with the new strategic approach that we are taking today. When modelling emissions from the facility for the purpose of a site specific standard, the facility's maximum production capacity is used along with local meteorological data to produce a maximum, worst case scenario at the point of impingement for the timeframe referenced in the regulation. For a 24 hour standard such as particulate, this does not represent the typical 24 hour emission rate, but instead the worst case 24 hour period over a five year period.

Ron Dorscht – Does the opacity data relate to the model? How does stack opacity contribute to overall particulate?

Fred Post – The actual opacity is not used as an input to the model. It is not clear if it is possible to incorporate opacity data into the Emission Summary and Dispersion Model as there is no reliable literature that correlates opacity to emission rates. There is very little literature available that quantifies contaminants from coke stack emissions and there have never been stack tests conducted on Algoma's coke stacks.

The public members of the CLC submitted some questions prior to the meeting regarding what steps the MECP has taken in the past year to enforce compliance with O.Reg. 419 with respect to stack opacity.

Ron Dorscht – The MECP and Algoma have monthly meetings (or as needed) to discuss environmental matters pertaining to the facility. The MECP has been pressuring Algoma to prepare a plan to reduce stack opacity. Previously the SSS was more impactful because its priority related to more hazardous air contaminants, but now that the facility is in compliance with the SSS, the MECP's focus is on stack opacity. The MECP is satisfied with the SSS performance but recognizes the challenges facing stack opacity. While Algoma is continuing to make an improvement in stack opacity, the limit in O.Reg. 419 is 20%. The MECP hopes Algoma can find a path forward to lower stack opacity.

David Trowbridge – Why is Algoma allowed to have stack emissions on #7 battery exceeding the limit 22 hours a day? Was it because of the SSS compliance took priority? Charges were laid in Hamilton, why not Algoma?

Ron Dorscht – Yes, SSS compliance was the highest priority and now the MECP is reviewing the O.Reg. 419 requirements for opacity. Each circumstance is unique, and multiple parameters are looked at when evaluating whether to press charges for non-compliance.

The public members of the CLC submitted some questions prior to the meeting regarding the reporting of daily verses individual opacity exceedances.

Fred Post - As the data we present demonstrates, there are multiple occurrences on each stack, each day. However understanding the quantity of occurrences on each day is of little value since one occurrence may last for six minutes or six hours and there is no reflection of the intensity of the emission. This is why we elect to show both the total duration of excursions as well, as the average of total opacity. These two metrics together allow us to monitor the overall performance trends both in terms of their intensity and duration.

David Trowbridge – Has any ground proofing been done in the modelling?

Fred Post – Yes, there have periodically been modeling and monitoring comparisons, some of which pre-dated the SSS's and some which were required by the SSS's. As part of the particulate SSS, a one year assessment of particulate and metals was conducted. Scott Grant of the MECP made some comparisons of those monitored results to the model and there appeared to be good correlation. A CAMM study (Comparative Analysis of Monitoring and Modeling) was conducted between 2011 – 2014 for benzene and BaP. A consultant performed detailed sampling at upwind, at source and downwind locations and results were statistically analyzed in comparison to the model which demonstrated strong correlations.

David Trowbridge – Has Algoma looked at end of pipe controls on the stacks such as a baghouse, electrostatic precipitators or scrubbers? I believe the batteries in Allegheny County might use them.

Fred Post – End of pipe controls have been evaluated however they were determined not to be feasible. The best way to control stack opacity is with oven heating and masonry maintenance. Algoma is unsure of what control measures are used in Allegheny County.

David Trowbridge – I will look to confirm what Allegheny County uses. How is the silica dusting working?

Chris Galizia – We are seeing some benefits from silica dusting. Silica dusting has become a regular maintenance practice now and is used prior to an oven being returned to service after maintenance has been performed.

Peter McLarty – Since #7 battery is the biggest concern, will there be a time when it is no longer repaired and phased out?

Fred Post – Improvements are continually being made on #7 battery. Algoma does recognize its age but is optimistic its performance can be improved greatly.

Chris Galizia – There were similar concerns with #7 battery's SSS emissions, however today it has the best SSS results of the 3 batteries.

5. 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 date of June 2023 for the new standard to come into effect. The MECP has circulated a draft rationale document to the working group for review and comment, with plans to meet by the end of April.

Questions:

David Trowbridge – The draft rationale document was substantial. There is a lot of information contained in it that will be discussed at the working group meetings, but there is no mention of what interim measures are being taken to reduce emissions before the technical standard is in place.

Fred Post – Algoma is continuing to fulfill the compliance requirements within the existing SSS's until the technical standard is in place. In the technical standard, Cokemaking leak limits are expected to remain the same since these are the most stringent limits in place in other jurisdictions and Algoma doesn't have any concerns with maintaining compliance to these limits. Algoma will continue to explore opportunities for improvement before 2023. The requirements for coke oven gas desulphurization are expected to align with the existing federal requirements.

David Trowbridge – The petrochemical standard has a substantial increase in monitoring requirements. Would similar requirements be considered?

Ron Dorscht – There are ongoing discussions throughout the MECP for increased monitoring.

Fred Post – The MECP is evaluating both Algoma's model outputs to determine the most appropriate monitoring areas in the community, as well as the suitability of those sites as they relate to the MECP's siting criteria for ambient air quality monitoring stations. Once the evaluation is complete, there may be changes to Algoma's ambient air quality monitoring program.

6. Environmental Compliance Approval (ECA)

No new ECA applications have been submitted, and none are outstanding. The amendment to an existing ECA for its #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 LMF was commissioned at the end of February with no visible emissions.

Questions:

David Trowbridge – Was the SSS rolled into an existing ECA or is it a new ECA?

Fred Post – The SSS expired and the requirements contained within it were placed into a new ECA. The requirements did not change, only the regulatory mechanism.

7. 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 (~60% complete)
- 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)
- Boat slip dredging (Planned)
- Expanding the site wide baseline hydrogeological investigation (Planned)
- Design Oil Water Separator and Groundwater Collection System (Planned)
- Design Dirt / Oil / Water Separator for Vacuum Truck Dumping (Planned)
- Designing groundwater collection and treatment systems (Planned)
- Tank Bottom Clean-out (#1 & #5 Tanks) (Planned)
- Surface stabilization, ground and surface water management and revegetation (Planned)

8. Public Complaints

Public complaints regarding particulate, odour and noise from the last quarter were noted. There was a public complaint regarding odour/particulate in February that originated from the Blast Furnace blowdown. A second complaint was received regarding noise from a boiler at Algoma Steel's Conmee Avenue property. The boiler has since been replaced and the noise issue has been rectified.

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.

9. General Discussion

David Trowbridge – I had difficulties reviewing some of the air quality reports on your website. Is the fourth quarter data available?

Fred Post - We are advised by the consultant who operates our air quality monitoring stations that the completion of the Q4 2020 Summary Report has been delayed as a result of delays in the lab arising from the pandemic. The Q4 2020 Summary Report will be posted when it is received.

Fred Post – Algoma is in the process of completing its 2020 ESDM which has resulted in some changes to the model outputs. The reasons for the change include the use of the MECP’s newest approved version of the air model, an updated meteorological data set as well as updates to some of the inputs to the model. Preliminary modeling suggest that these changes may require Algoma to apply for new SSS’s for benzene and BaP.

10. Next Meeting

The next tentative CLC meeting schedule is as follows:

- June 8th, 2021
- Sept 14th, 2021
- Dec 14th, 2021

The meeting adjourned at 3:00 PM, March 16th, 2020.

*Meeting notes prepared by Chris Galizia and Fred Post
April 16th, 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 | 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 |
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