



Community Liaison Committee Meeting #28

March 5th, 2019

Agenda

1. Review of December 5th, 2018 meeting notes
2. Membership Items
3. Site Specific Standards / Technical Standards
4. Algoma Boat Slip
5. Noise Abatement
6. Environmental Compliance Approval updates
7. Greenhouse gases
8. Legacy Environmental Action Plan
9. Public Open House
10. Next Meetings

Membership Items

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 Nations
City of Sault Ste. Marie
United Steel Workers Local 2251
St. Mary's River RAP Coordinator

Primary Member

Fred Post
Lori Greco
David Trowbridge
Patt Marquis
Kathie Brosemer
Kara Flannigan
Suzanne Lieurance
Dan Sayers Jr.
Catherine Taddo
Reginald Dunn
Lisa Derickx

Alternate

Chris Galizia
Ron Dorscht
Peter McLarty

Chris Spooney

Maggie McAuley

Site Specific Standard for Particulate and BaP

- On March 27th, 2015 Algoma received a Site Specific Standard for Particulate which sets specific emission limits in cokemaking:
 - Certified observers (per EPA Method 9 and Method 303)
 - 5 days per week, 10 Saturdays and 10 Sundays each year
 - Must observe daily per battery: 4 pushes, 5 charges, all lids, all doors, and all standpipes
 - Must make operational adjustments if over the daily limits and notify MECF

Site Specific Air Quality Standard for Particulate & B(a)P

Identifies Key Performance Indicators related to Cokemaking Emissions:

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

Conformance calculated daily for each battery

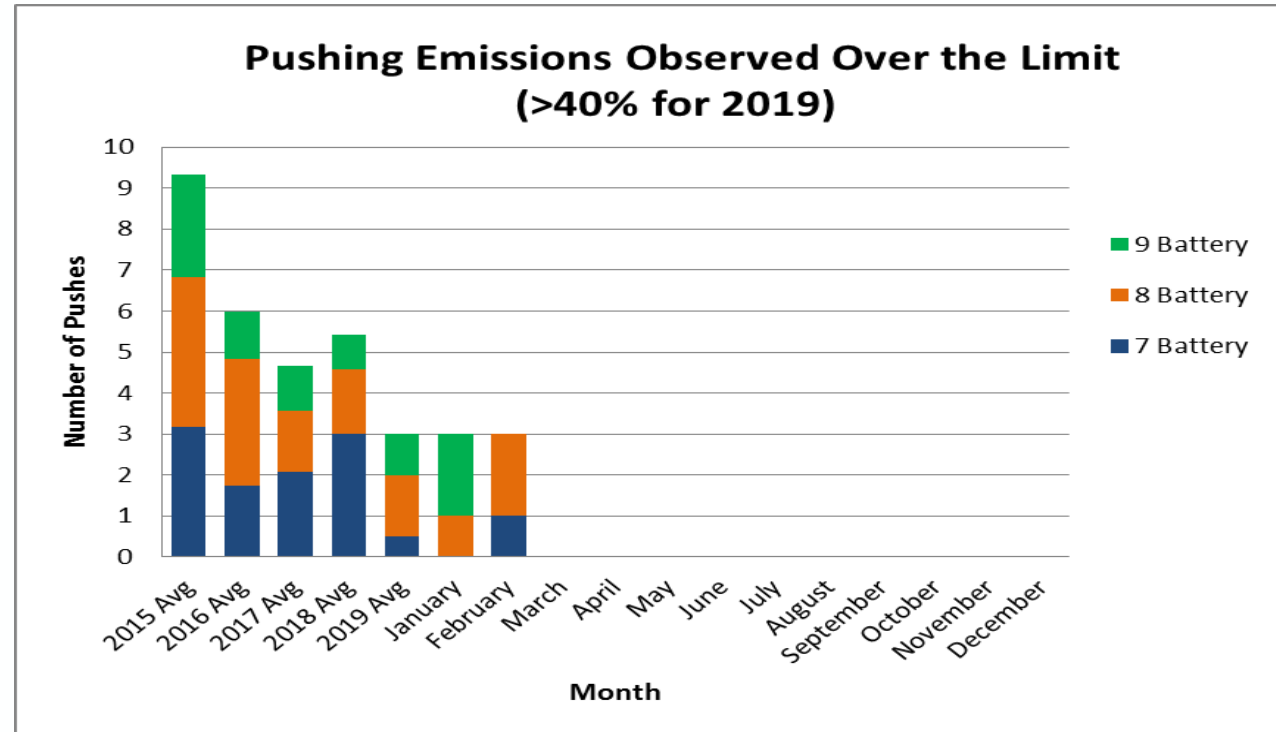
New limits set July 2015. Progressive, annual reduction.

Implementation Date	30 day rolling average %			Charging Emission	Pushing Opacity (%)
	Doors	Lids	Off-takes		
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	4	0.4	2.5	12 sec	30



Continued Success through Operating Adjustments

To date all corrective actions have been successful at reducing pushing opacity below the limit.

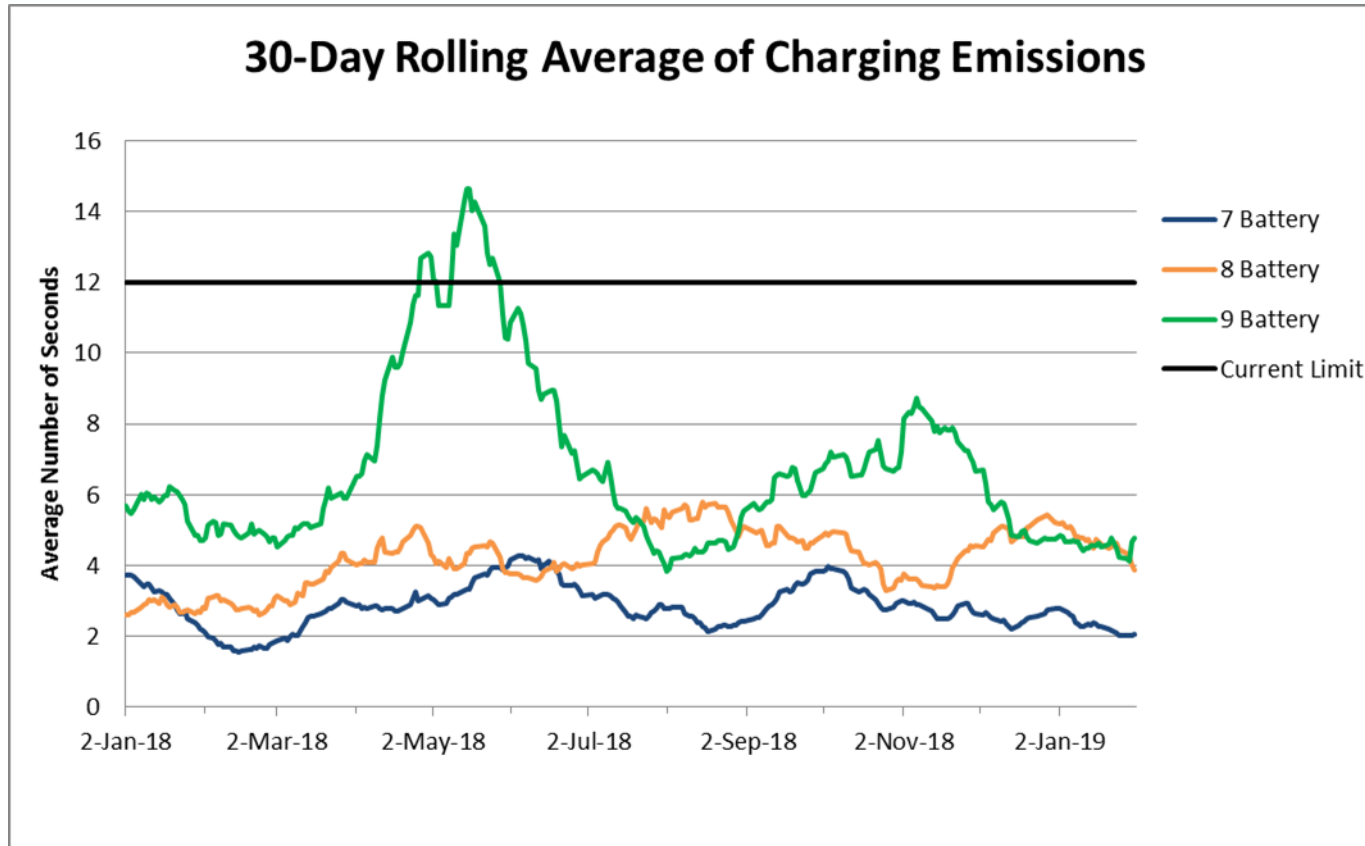


Corrective actions include:

- Taking cross-wall temperature readings to identify problem flues
- Cleaning the flues, pins, orifices, risers, flex hoses, venturies and bus flues
- Increasing oven temperature
- Repairing adjacent ovens and ensure proper heating of the shared walls
- Adjusting fuel or air to improve combustion
- Extending coking time



Charging Emissions Below Limit



Preventative Measures include:

Adjusting carbon scraper bar

Decarbonizing standpipes, goosenecks and charge holes

Cleaning goosenecks, sleeves to the collector main, and steam jets

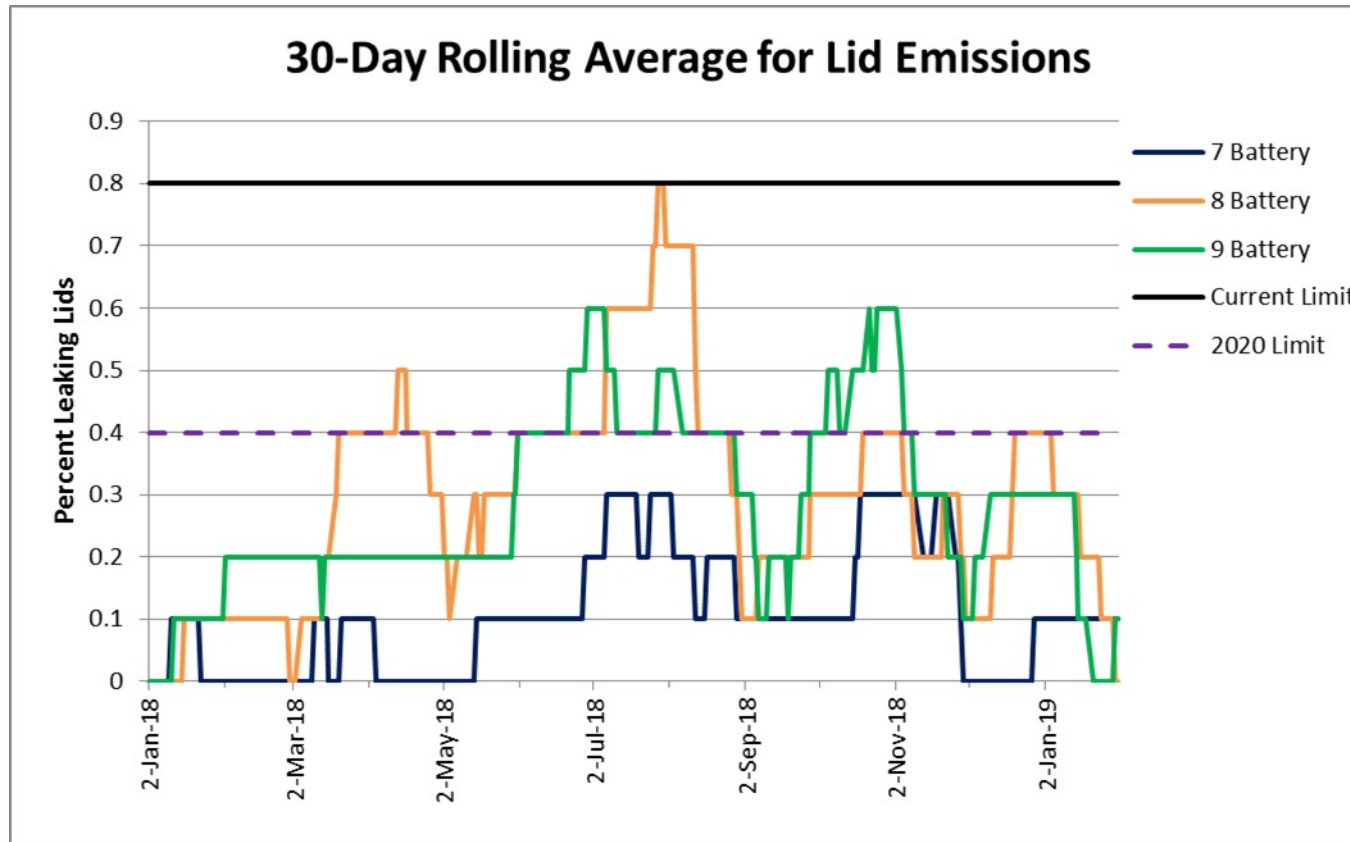
Replacing drop sleeve donuts, bellow bags, and carbon seals

Adjusting coal feed systems to optimize coal charging volume

Leveling charge hole bases to ensure proper elevation and tight seal



Lid Emissions Below Limit



Preventative Measures include:

Applying lid sealant immediately after charging an oven and whenever emissions are observed

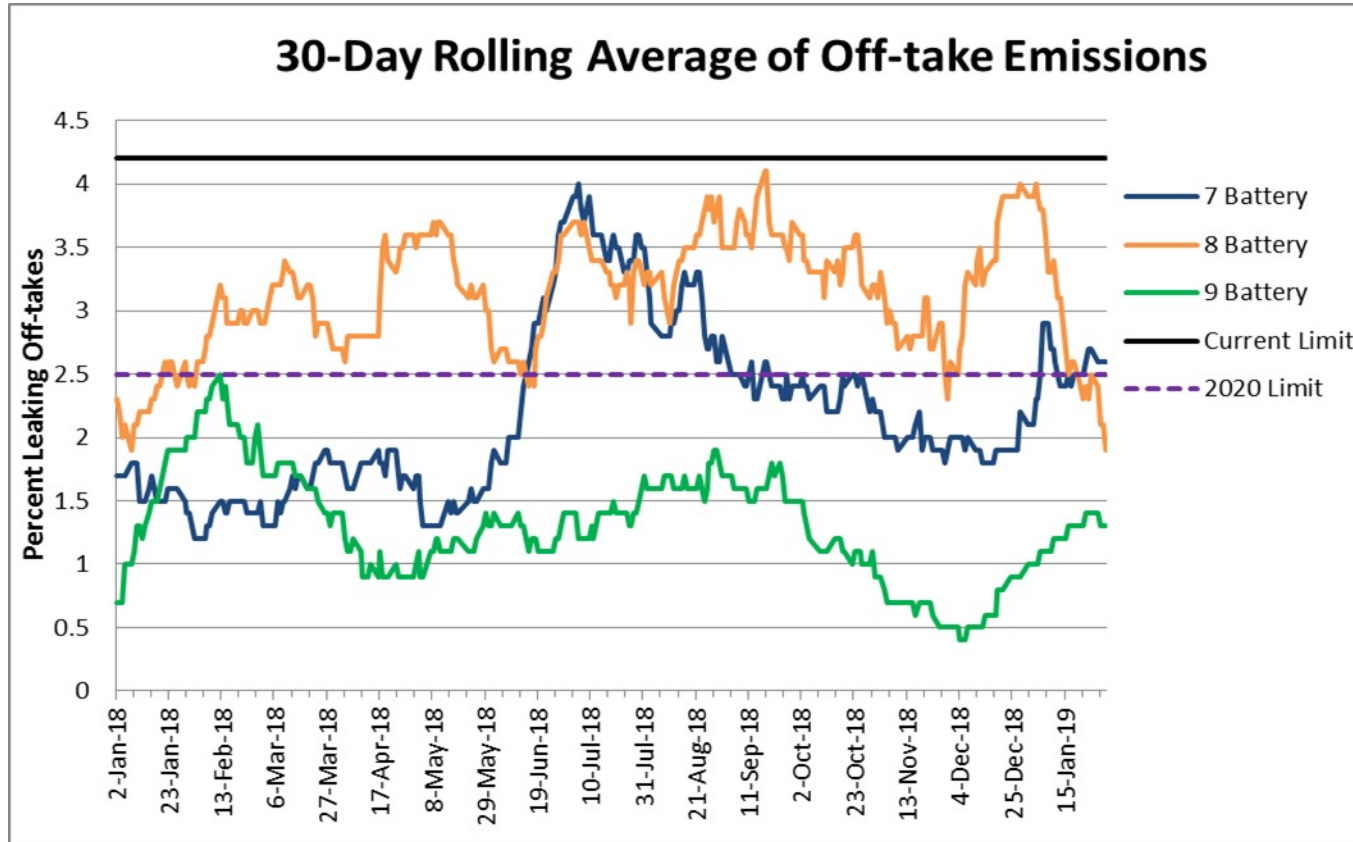
Replacing damaged or cracked lids

Repairing, leveling and grouting charge hole bases to ensure proper seal



Off-take Emissions Below Limit

Preventative measures include:



Replacing the soft seal and adjusting the cap

Cleaning the gooseneck, sleeve to collector main, and steam jet

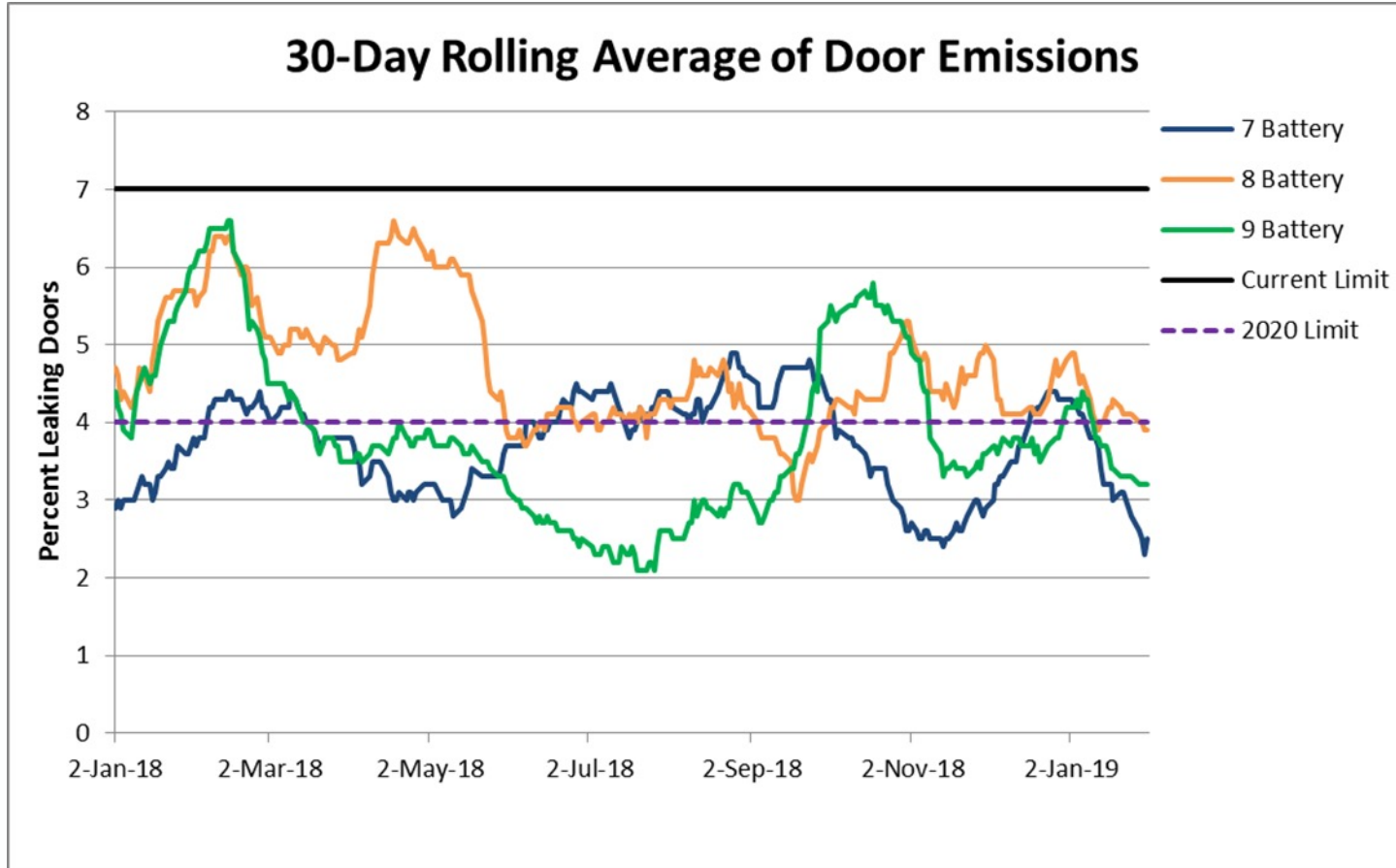
Re-packing collar or base of the pipe with refractory

Applying masonry seal to small cracks until welding can be completed

Replacing the standpipe at the end of its lifecycle



Door Emissions Below Limit



Preventative measures include:

Adjusting door bolts, frame clips and hour glass clips

Cleaning doors, door jambs, sill plates and spotting targets

Replacing door cleaner bushes and jamb cleaner blades on frequent schedule

Replacing damaged doors and frames.

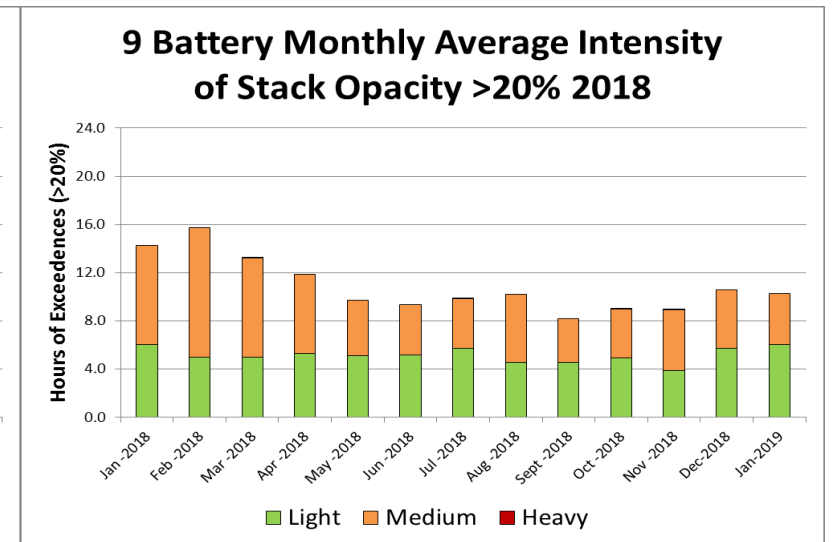
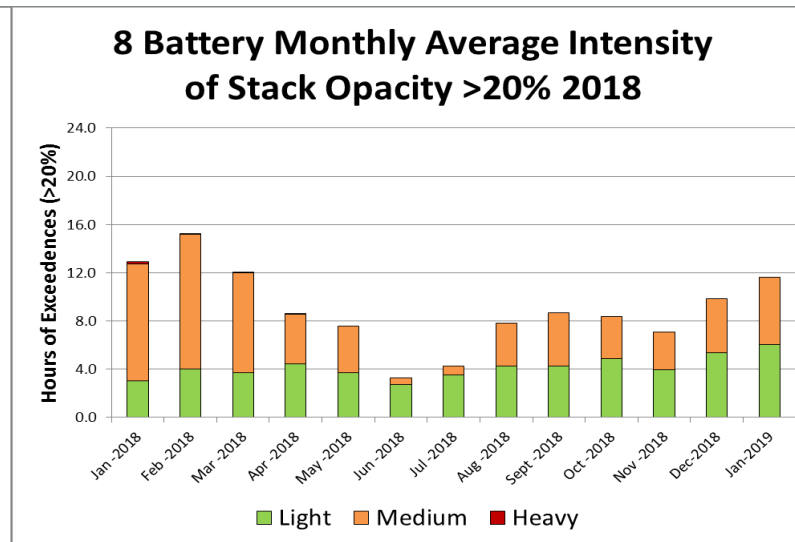
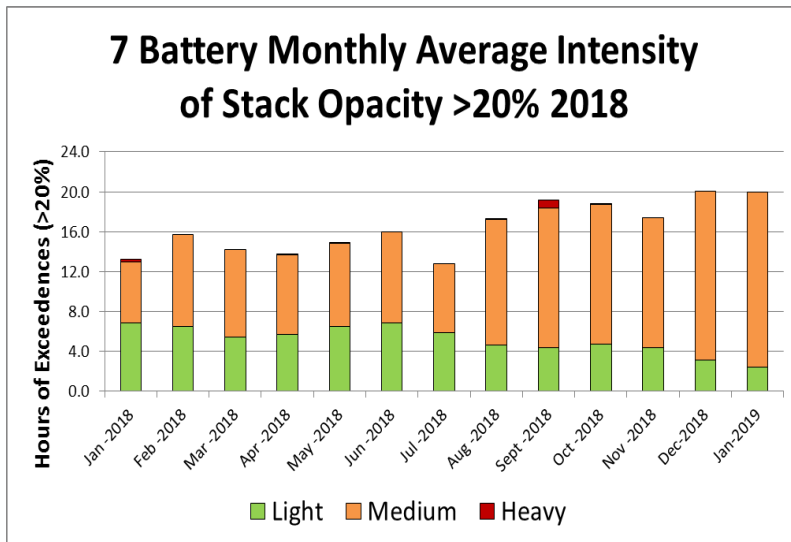
Applying silicate to seal leaks



Stack Opacity

Continuous corrective actions on all batteries

- Part of the investment plan to achieve compliance with SSS limits also focuses on reducing stack emissions from cokemaking
- Intensive Masonry maintenance continues to be required on oven walls and end flues
- Focus is on reducing intensity of stack emissions



Public Complaints

There were no public complaints received since the last CLC meeting that related to a matter addressed in the SSS Order.

The following public complaint was received by the company:

- Feb 24th – Noise at Welded Beam – building heating boiler adjustment made

Site Specific Standards (SSS)

Benzene SSS - requires expansion of Benzene Emission Control (BEC) systems and on site monitoring to identify missing sources

- North Raw Liquor Tank – removed from service in late spring
- Planning has started to install remaining controls by 2020 year end
- A monitoring program was completed in the by-products area to identify benzene emission sources. Three sources were identified and corrective actions are completed or planned.

Particulate SSS – An ambient air monitoring program is ongoing for metals contained in particulate (Iron, Chromium VI, Manganese and Nickel)

Technical Standard

Regulatory Instrument to replace existing SSS's

- The MECP commenced discussions with sector on new Technical / Site Specific Standards for multiple air contaminants
- Contaminants could include: Particulate, B(a)P, Benzene, Sulfur Dioxide, Total Reduced Sulfur and Metals (x4)
- Process expected to take 3-4 years to develop
- Site visit (May 8) and acceptance of monitoring programs
- Benzene air monitoring program completed
- Metals air monitoring program commenced in August
- Community consultation commenced by MECP

Technical Standard

Next steps – Algoma Steel to participate in Ministry working groups focusing on:

- Fugitive metal/particulate emissions from on-site roadways; steel-making; slag management;
- Limiting emissions from blast furnace upsets;
- Identifying current emission sources and air pollution control approaches at each facility;
- Assessing the ongoing ambient air monitoring program results;
- 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

Boat Slip Sediment

Dredging occurred in summer 2017. The objective was to remove legacy contaminated sediment.

A post-dredge sediment sampling was completed in May 2018.

The results indicate contamination remains where previous dredging ended.

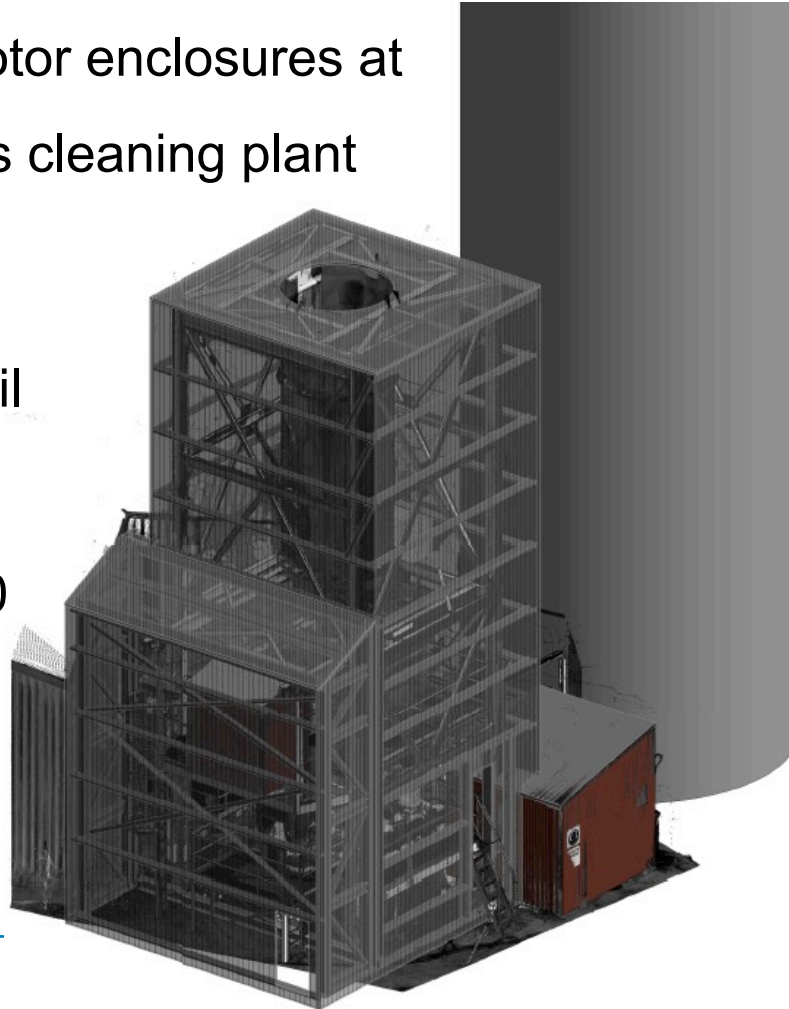
A thin layer of contamination remains where dredging was completed. This is believed to be residual from spillage during dredging.

Further dredging is being planned for 2019.



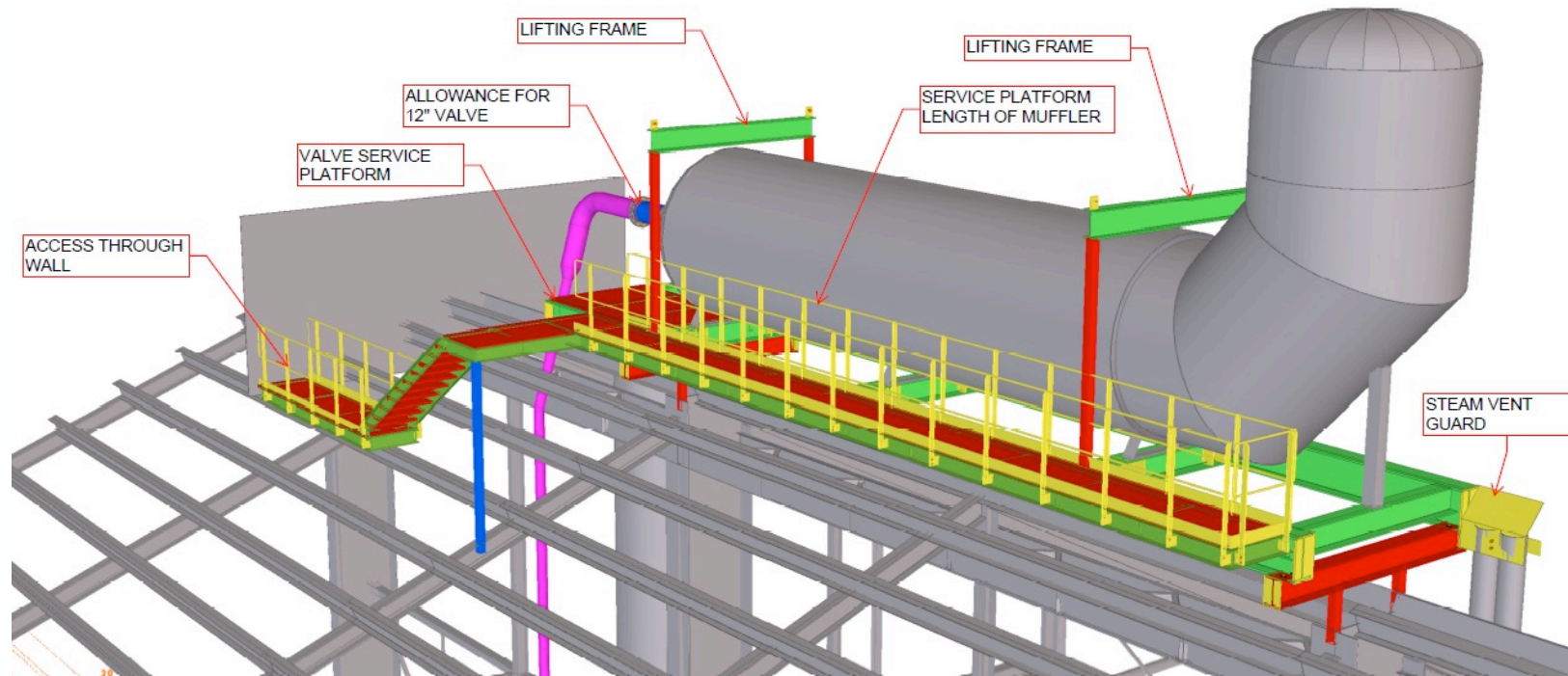
Noise Abatement

- Installation commenced in October 2018 for two fan motor enclosures at the steelmaking gas cleaning plant
- Completion anticipated in April 2019
- Cost ~\$1,076,000



Noise Abatement

- New acoustic silencing muffler has been fabricated and shipped to site
- Final installation anticipated in April 2019
- Cost \$742,000



New Environmental Compliance Approval Applications

- Algoma submitted an Environmental Compliance Approval application for a surface and groundwater treatment facility at base line ditch.
- The application was posted on the EBR for public comment on Nov. 9th and is available at:
<http://www.ebr.gov.on.ca/ERS-WEB-External/displaynoticecontent.do?noticeId=MTM2NTE5&statusId=MjA4MDUy&language=en>
- The application is under review

Climate Change Regulations

Federal Backstop

- Federal regulations apply to provinces without carbon pricing systems starting Jan 1 2019.
- There are two primary components of the federal system:
 1. **Output Based Pricing System (OBPS)**
 - Beginning Jan. 1st 2019, the federal backstop applies to the integrated iron and steel sector
 - Benchmarks currently set at 90% coverage of the sector average emission intensity
 - Algoma Steel involved in a detailed Energy Intensity and Trade Exposure assessment to evaluate risks
 2. **Clean Fuels Standard (CFS)**
 - CFS is a fuel charge applied to fossil fuels equivalent to \$50/tonne CO₂e – starting with liquid fuels only
 - CFS for liquid fuels will result in cost pass-through to Algoma Steel

Ontario

- On February 12th Ontario released details of a new provincial climate change plan for industry
- The intention is to meet the federal benchmark and exempt industry from the backstop regulations

Federal Low Carbon Economy Fund – Champion Stream

- Application for \$4M for light oil project under final review

Legacy Environmental Action Plan (LEAP)

Environmental Framework Agreement

- The MECP and Algoma Steel signed an Environmental Framework Agreement which was established to mitigate risk from on-site legacy environmental liabilities

Program Approval

- Ontario's EPA allows a person responsible for a source of contaminant to submit a program to prevent or to reduce and control the discharge into the natural environment of any contaminant. A Program Approval is a document describing the associated abatement activities.
- A Program Approval has been posted on the EBR for public comment: <http://www.ebr.gov.on.ca/ERS-WEB-External/displaynoticecontent.do?noticeId=MTM3Mjk3&statusId=MjA5MjM5&language=en>

LEAP

- The LEAP is a risk-based environmental management plan to be maintained and funded by Algoma Steel (ASI), with the objectives of identifying, assessing, managing and mitigating off-site adverse environmental effects caused by Legacy Environmental Contamination at the Site. ASI will be responsible for planning, budgeting/funding, implementing, documenting and reporting the activities undertaken as part of the LEAP, while the MECP has oversight, review and approval responsibilities for LEAP budget, plans and activities, including approval (or pre-approval) of eligible LEAP expenses.
- A formal action and implementation plan for Year 1, and indicative action plans for the following four calendar years is in the final stages of approval.

Public Open Houses

- Last open house held on December 5, 2018 at the Polish Canadian Hall
- Next open house to be scheduled for fall 2019.

Next Meeting

- Proposed 2019 Schedule:
 - March 5th, 2019 (today)
 - June 4th, 2019
 - September 10th, 2019