



The Steel Company of Canada

Lake Erie Works Community Liaison Committee Meeting

06 February 2019

| K. Chan

Agenda

1. Welcome and Safety Contact
2. Review and Approval of Agenda
3. Review and Approval of Minutes of 17 October 2018 Meeting
4. Performance under O.Reg. 419/05 Site Specific Standard Order– Particulates
5. Cokemaking Update
6. Winter fugitive dust management
7. ISO 14001 Update
8. Community Concerns
9. Adjournment

Know Your Emergency Exits

Review Evacuation Routes of
the room you are located in



Agenda

1. Welcome and Safety Contact
2. Review and Approval of Agenda
3. Review and Approval of Minutes of 17 October 2018 Meeting
4. Performance under O.Reg. 419/05 Site Specific Standard Order– Particulates
5. Cokemaking Update
6. Winter fugitive dust management
7. ISO 14001 Update
8. Community Concerns
9. Adjournment

Agenda

1. Welcome and Safety Contact
2. Review and Approval of Agenda
3. Review and Approval of Minutes of 17 October 2018 Meeting
4. Performance under O.Reg. 419/05 Site Specific Standard Order– Particulates
5. Cokemaking Update
6. Winter fugitive dust management
7. ISO 14001 Update
8. Community Concerns
9. Adjournment

Agenda

1. Welcome and Safety Contact
2. Review and Approval of Agenda
3. Review and Approval of Minutes of 17 October 2018 Meeting
4. Performance under O.Reg. 419/05 Site Specific Standard Order– Particulates
5. Cokemaking Update
6. Winter fugitive dust management
7. ISO 14001 Update
8. Community Concerns
9. Adjournment

Site-Specific Standard Order (Particulates): Performance Review – Daily

Date	Doors (% Leaks)	Lids (% Leaks)	Off-takes (% Leaks)
2015 Limits (July 2 start)	54%	2%	NA
2016 Limits	32%	2%	NA
2017-2019 Limits	10%	2%	5%
2020 Limits	5%	1%	4%
Oct 1 – Dec 31, 2018 Range (Average)	0 – 9.09% (3.97%)	0 – 1.8% (0.26%)	0 – 5.0% (3.63%)

Daily Measurements Performed YTD

- All weekdays, except for holidays
- 10 Saturdays
- 10 Sundays

Oct 1 – Dec 31, 2018 Operational Adjustments

- None required – in compliance with 2018 limits

Site-Specific Standard Order (Particulates): Performance Review – 30 Day Rolling Averages

Date	Doors (% Leaks)	Lids (% Leaks)	Off-takes (% Leaks)	Charging (sec) (log avg)
2015 Limits (July 2 start)	38%	0.8%	25%	12 sec
2016 Limits	22.5%	0.8%	15%	12 s
2017-2019 Limits	7%	0.8%	4.2%	12 s
2020 Limits	4%	0.4%	2.5%	12 s
Oct 1 – Dec 31, 2018 Range (Average)	3.14 – 4.85% (3.86%)	0.12 – 0.35% (0.2%)	3.28 – 4.01% (3.65%)	7.4 – 9.1 s (8.1 s)

October 1 – December 31, 2018 Performance

- In compliance with 2018 limits

Site-Specific Standard Order (Particulates): Performance Review – Daily Observations – Pushing Emissions

Date	Pushing Emission (opacity %)
2015 Limit (July 2 start)	$\geq 50\%$
2016 – 2018	$\geq 50\%$
2019	$\geq 40\%$
2020	$\geq 30\%$
Oct 1, - Dec 31, 2018 Range (Average)	0 – 48.33% (10.29%)

Oct 1 – Dec 31, 2018 Operational Adjustments

- None required – in compliance with 2018 limit

Site-Specific Standard Order (Particulates): Performance Review – Additional Items

- There were no community complaints for the period of October – December 2018
- MECP to provide verbal comments

Agenda

1. Welcome and Safety Contact
2. Review and Approval of Agenda
3. Review and Approval of Minutes of 17 October 2018 Meeting
4. Performance under O.Reg. 419/05 Site Specific Standard Order– Particulates
5. Cokemaking Update
6. Winter fugitive dust management
7. ISO 14001 Update
8. Community Concerns
9. Adjournment



The Steel Company of Canada

Lake Erie Works Cokemaking Update

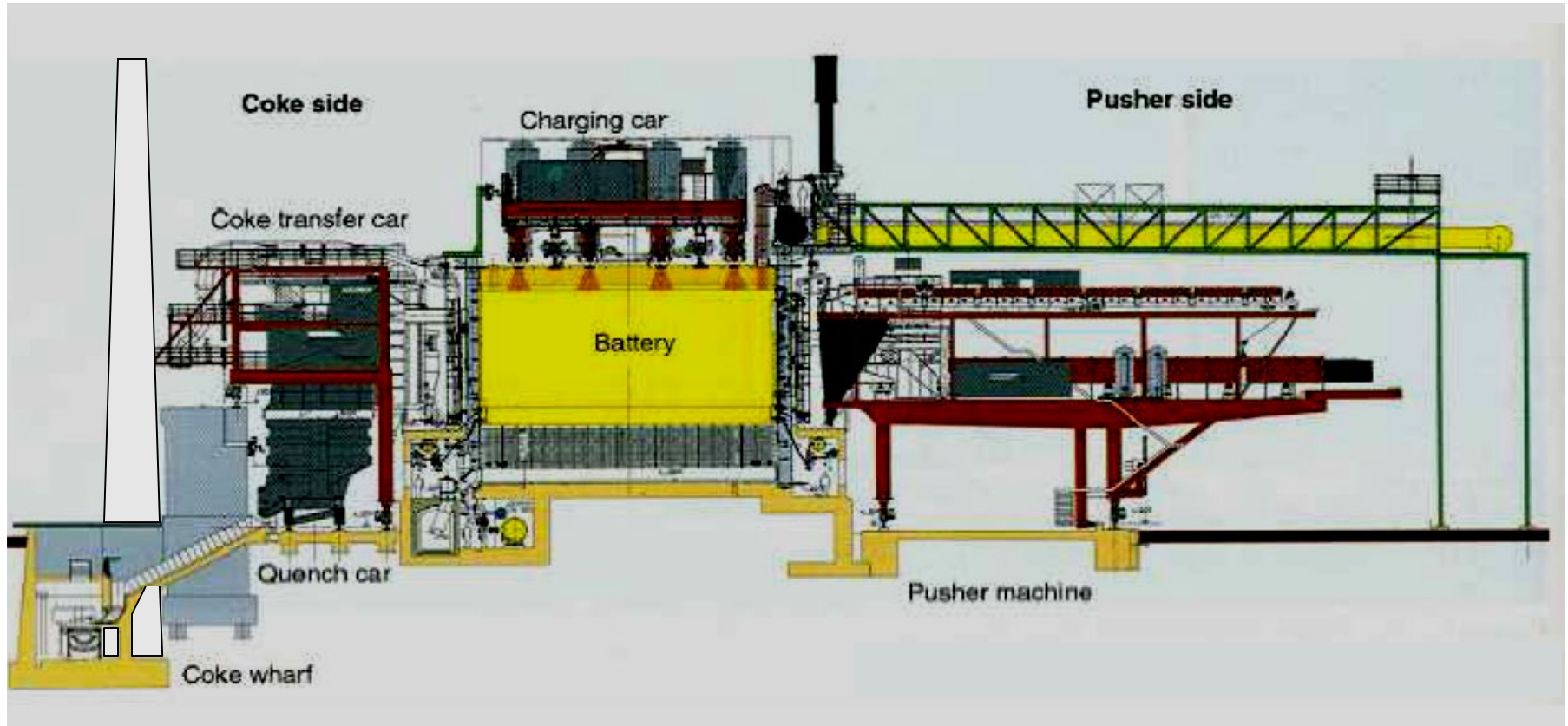
February 2019

Pete Schiestel

Stelco Cokemaking Overview

- Video presentation

Coke Battery Overview



LEW Battery

History:

The Lake Erie Works #1 battery was commissioned in 1981 with ostensible repairs completed in 1997.

Present:

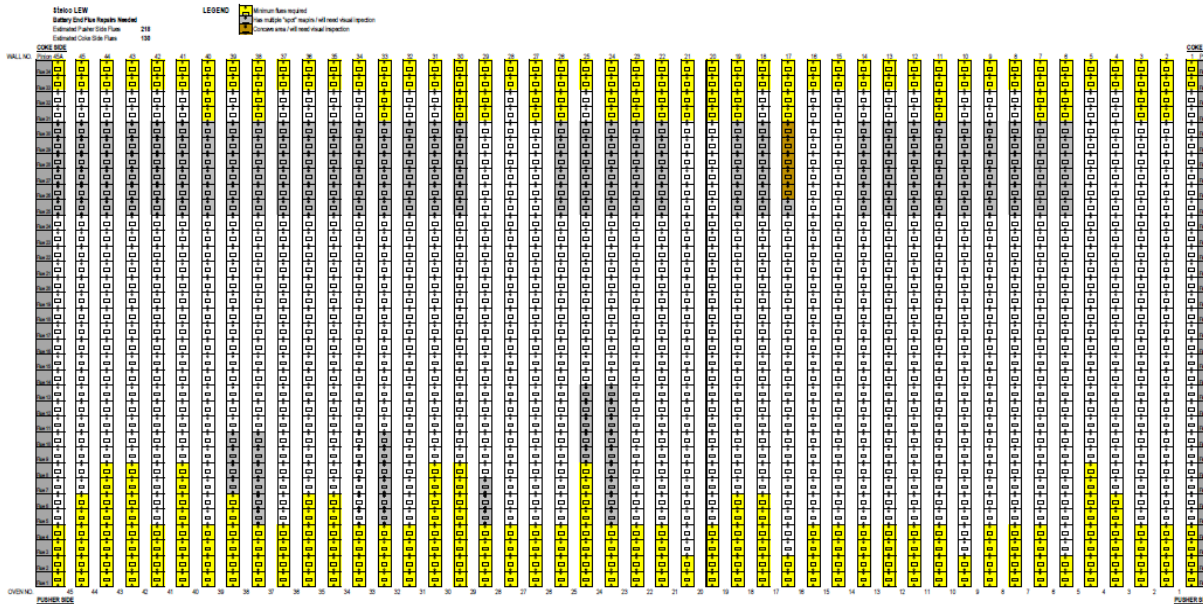
Routine daily patching refractory repairs.



End Flue Repairs

Scope:

- 45 ovens will be repaired on the pusher side and coke side
- Complete battery bracing system refurbishment with the addition of new water seal stand pipe caps.



Brick Courses

Procedure:

6 to 8 layers of flue brick will be positioned each day to provide the appropriate wall alignment.

Curing of the mortar is crucial to prevent cross wall leaks.

Controlled commissioning of the mended oven enhances battery life.



2016



The Steel Company of Canada

Thank You.

stelcocanada.com

Agenda

1. Welcome and Safety Contact
2. Review and Approval of Agenda
3. Review and Approval of Minutes of 17 October 2018 Meeting
4. Performance under O.Reg. 419/05 Site Specific Standard Order– Particulates
5. Cokemaking Update
6. Winter fugitive dust management
7. ISO 14001 Update
8. Community Concerns
9. Adjournment



The Steel Company of Canada

Lake Erie Works

Winter Dust Management

B. Stefureak

| Iron Producing Area Manager

Overview

- Well-established fugitive dust management plan already in place
 - A “living” document – best management practices for continual improvement
 - Integrated in Standard Operating Procedures
- Dust mitigation practices are customized by season to address different external environmental conditions
- Stockpiles and roads are inspected on a continuous basis to determine need for dust control

Raw Material Handling - Dock

- The Process Coordinator – Raw Materials & Dock oversees dust management of stockpiles at all times of the year
- Coal Stockpiles generally arranged to minimize surface area that can be affected by prevailing winds
 - 9 stock piles reduced to 4 stock piles
- Sufficient quantity of raw materials are shipped to the facility via boat prior to seasonal closure of the Great Lakes Seaway. Stock piles are prepared for winterization
 - Includes covering coal piles with a crusting agent → sealant
- In forecasted high wind conditions, operating stockpiles are suppressed with water by tanker immediately (temperature considerations)
- May include temporary cessation of operations if deemed necessary

Tools For Proactive Approach



LEW Blast Furnace & Dock Department

General Info.	Logs	Safety	Mobile Equipment	Employee	Technical	Links	Training	Administration
---------------	------	--------	------------------	----------	-----------	-------	----------	----------------

Welcome to the LEW Blast Furnace & Dock Department Website

- *Timely communication with all crews*
- *Detailed current weather and future wind forecasts*
- ***USE DUST SUPPRESSION TOOLS PROACTIVELY!***

Ambient Temp.: 1.8 °C @ 2019-02-03 00:05
Humidex: -5.0 °C @ 2019-02-03 00:51
Equiv. Chill Temp.: -7.4 °C @ 2019-02-03 00:30

Wind Speed: 20.3 km/hr @ 2019-02-03 00:30
Wind Direction: 232.0 ° @ 2019-02-03 00:30
[Wind Forecast \(4Shrs\). Internet Required.](#)

Please review the **COLD WEATHER PLAN**

Today's Posted Job Instructions:



Tools For Proactive Approach

Wind, waves & weather forecast

Lake Erie / Long Point

[Maps](#) >



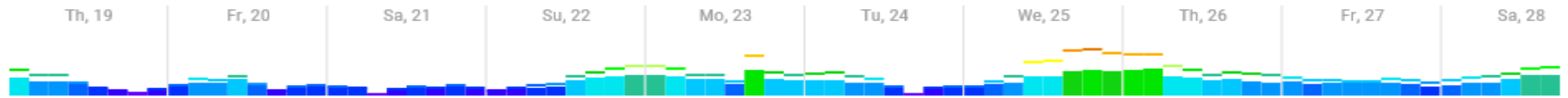
6mph
West-Southwest



32°F
Overcast

Data based on our forecast model 7:45 am 5:18 pm 1:30 pm (UTC -5) 564 ft sploc.com

[Forecast](#)
[Superforecast](#)
[Webcams](#)



Last update: 11:38 am local time
This forecast is based on the GFS model

[Print this forecast](#)
[Embed this forecast](#)

Local date

Thursday, Jan 19

Friday, Jan 20

Local time	1am	4am	7am	10am	1pm	4pm	7pm	10pm	1am	4am	7am	10am	1pm	4pm	7pm	10pm
Wind direction	↗	↗	↗	➡	↗	↗	↙	↙	←	←	←	←	←	↖	↗	↗
Wind speed (mph)	16	13	13	10	7	5	3	6	8	12	12	15	9	5	7	8
Wind gusts (max mph)	24	20	20	13	8	6	3	7	10	16	15	18	12	6	9	10
Cloud cover	☁	☁	☁	☁	☁	☁	☁	☁	☁	☁	☁	☁	☁	☁	☁	☁
Precipitation type													☔	☔	☔	
Precipitation (in/3h)													0.16	0.08	0.08	
Air temperature (°F)	34	32	32	32	32	34	32	32	32	32	34	36	34	36	37	37
Air pressure (inHG)	29.44	29.44	29.44	29.5	29.44	29.41	29.41	29.38	29.32	29.26	29.18	29.15	29.12	29.12	29.15	29.15



Tools For High Wind Warning Notification

- Automated email alerts when measured wind at a weather station exceeds an alert setpoint (currently 21kph)
 - Emails are sent to iron producing management and all blast furnace Shift Managers (24 x 7)
 - System is integrated with the blast furnace control room alarm server, issuing an alarm for “High Wind Warning”, monitored at all times.
- Information is immediately passed on to all Raw Material/Dock personnel via radio so they can take immediate action

In-Plant Roads

- Similar to stock piles management, dust control on plant roadways vary based on seasonal conditions
- Internal visual inspection of roadways and related areas are conducted daily
- Dust from unpaved and paved roads are managed on a daily, or as required, basis
 - Dust management practices in winter include road sweeping, water flushing (temperature-permitting), closing/restricting roadways, and limiting vehicle speed



The Steel Company of Canada

Thank You.

stelcocanada.com

Agenda

1. Welcome and Safety Contact
2. Review and Approval of Agenda
3. Review and Approval of Minutes of 17 October 2018 Meeting
4. Performance under O.Reg. 419/05 Site Specific Standard Order– Particulates
5. Cokemaking Update
6. Winter fugitive dust management
7. ISO 14001 Update
8. Community Concerns
9. Adjournment

ISO 14001 Update

- ISO 14001 is the international standard that specifies requirements for an effective environmental management system
- Successfully completed external ISO 14001 surveillance audit in January 2019
- Third party auditors recommended LEW for continued ISO 14001 certification
 - Zero non-conformances

Agenda

1. Welcome and Safety Contact
2. Review and Approval of Agenda
3. Review and Approval of Minutes of 17 October 2018 Meeting
4. Performance under O.Reg. 419/05 Site Specific Standard Order– Particulates
5. Cokemaking Update
6. Winter fugitive dust management
7. ISO 14001 Update
8. Community Concerns
9. Adjournment

Agenda

1. Welcome and Safety Contact
2. Review and Approval of Agenda
3. Review and Approval of Minutes of 17 October 2018 Meeting
4. Performance under O.Reg. 419/05 Site Specific Standard Order– Particulates
5. Cokemaking Update
6. Winter fugitive dust management
7. ISO 14001 Update
8. Community Concerns
9. Adjournment

Supplementary (March 21, 2019)

Site-Specific Standard Order (Particulates): Performance Review – Daily

Date	Doors (% Leaks)	Lids (% Leaks)	Off-takes (% Leaks)
2015 Limits (July 2 start)	54%	2%	NA
2016 Limits	32%	2%	NA
2017-2019 Limits	10%	2%	5%
2020 Limits	5%	1%	4%
Jan 1 – Feb 28, 2019 Range (Average)	0 – 9.3% (5.96%)	0 – 1.28% (0.17%)	1.22 – 6.1% (3.75%)

Daily Measurements Performed YTD

- All weekdays, except for holidays
- 2 Saturdays
- 1 Sunday

Jan 1 – Feb 28, 2019 Operational Adjustments

- Offtakes - Applied lute (sealant) to caps;
spray refractory on leaking collars

Site-Specific Standard Order (Particulates): Performance Review – 30 Day Rolling Averages

Date	Doors (% Leaks)	Lids (% Leaks)	Off-takes (% Leaks)	Charging (sec) (log avg)
2015 Limits (July 2 start)	38%	0.8%	25%	12 sec
2016 Limits	22.5%	0.8%	15%	12 s
2017-2019 Limits	7%	0.8%	4.2%	12 s
2020 Limits	4%	0.4%	2.5%	12 s
Jan 1 – Feb 28, 2019 Range (Average)	4.4 – 6.73% (5.47%)	0.12 – 0.41% (0.27%)	3.55 – 4.06% (3.71%)	7.1 – 8.3 s (7.7 s)

January 1 – February 28, 2019 Performance

- In compliance with 2019 limits

Site-Specific Standard Order (Particulates): Performance Review – Daily Observations – Pushing Emissions

Date	Pushing Emission (opacity %)
2015 Limit (July 2 start)	$\geq 50\%$
2016 – 2018	$\geq 50\%$
2019	$\geq 40\%$
2020	$\geq 30\%$
Jan 1 – Feb 28, 2019 Range (Average)	0 – 39.17% (13.23%)

January 1 – February 28, 2019 Operational Adjustments

- None required – in compliance with 2019 limit

Proposed 2019 CLC Meeting Dates

Thurs. March 21

Wed. June 12

Wed. Sept. 18

Wed. Dec. 11



The Steel Company of Canada

Thank You.

stelcocanada.com