

Calvert Landfill

Liaison Group 12th February 2024



from waste to resource



Operations - Landfill

Main activities

- Non hazardous Landfill – remains mothballed due to low inputs.
- Restoration continues – Soils; and tree planting scheduled for 2024.

Secondary Activities

- Gas Utilisation – continues @ 6500kw daily
- Leachate Treatment – new plant to treat leachate on site. Less tanker requirements in future.



Operations – Quarry Backfill (Pit 6)

- Non-hazardous soil imports by road
- Bottom Ash processing continues on the pad within the area of the Quarry Backfill permit.



Engineering Works

- Permanent Capping

Programme to complete 80,000m² of permanent capping on Pit 5 Landfill 70% completed.
Scheduled to be restarted in March 2024

- Restoration Soils will be placed on top of the capping



Compliance

Environmental Permit Compliance

- Leachate levels as measured against the site's permit requirements currently at 100% compliant.



Developments

- Solar park planning application (for a solar farm located on the landfill restored area).
- FCC's restoration scheme will be amended to accommodate the solar panels for the next 35 years, and then it will revert to the current approved scheme.
- New offices and weighbridge in place at Greatmoor. Limited use of the Brackley Lane entrance.



HS2

- EKFB have blocked FCC's surface water discharge point which normally discharges to Claydon Brook.
- This has caused flooding around the Brackley Lane entrance.
- Environment Agency have been informed.
- EKFB are looking to unblock the Culvert under the rail track footprint to release the water.



Flooding by Calvert



The background image shows a large industrial facility, likely a waste-to-energy plant. It features massive concrete walls and structures. Two large, spherical mechanical components are suspended from the ceiling by cables. A worker in a white protective suit is visible on a platform in the distance. The lighting is dim, with some areas illuminated by bright lights, creating a high-contrast scene.

Community Liaison Meeting

February 2024



Operational Update



- H&S
- Operational Performance
- Environmental performance
- Education and Visitors Centre

Health & Safety Overview



- 4 Accidents since 01 Oct 23
 - Mild scalding – mistook boiling water tap for hot tap.
 - Minor hand injury whilst tightening a bolt
 - Driver left tipping hall with nets up
 - Cleaner caught 'ganglion' whilst cleaning.
- 6 events resulting in damage to property.
 - See next slide
- 9 events labelled as fire, the potential for fire or fire fighting equipment (no conflagrations).
- Average of 16 near misses reported per month
- 4 Environmental events recorded
 - None required reporting to the EA.
- No substantiated Complaints recorded
 - One was made about an unrelated FCC lorry near Sutton Courtney, one about the traffic lights being on at night.

Incidents/Damage



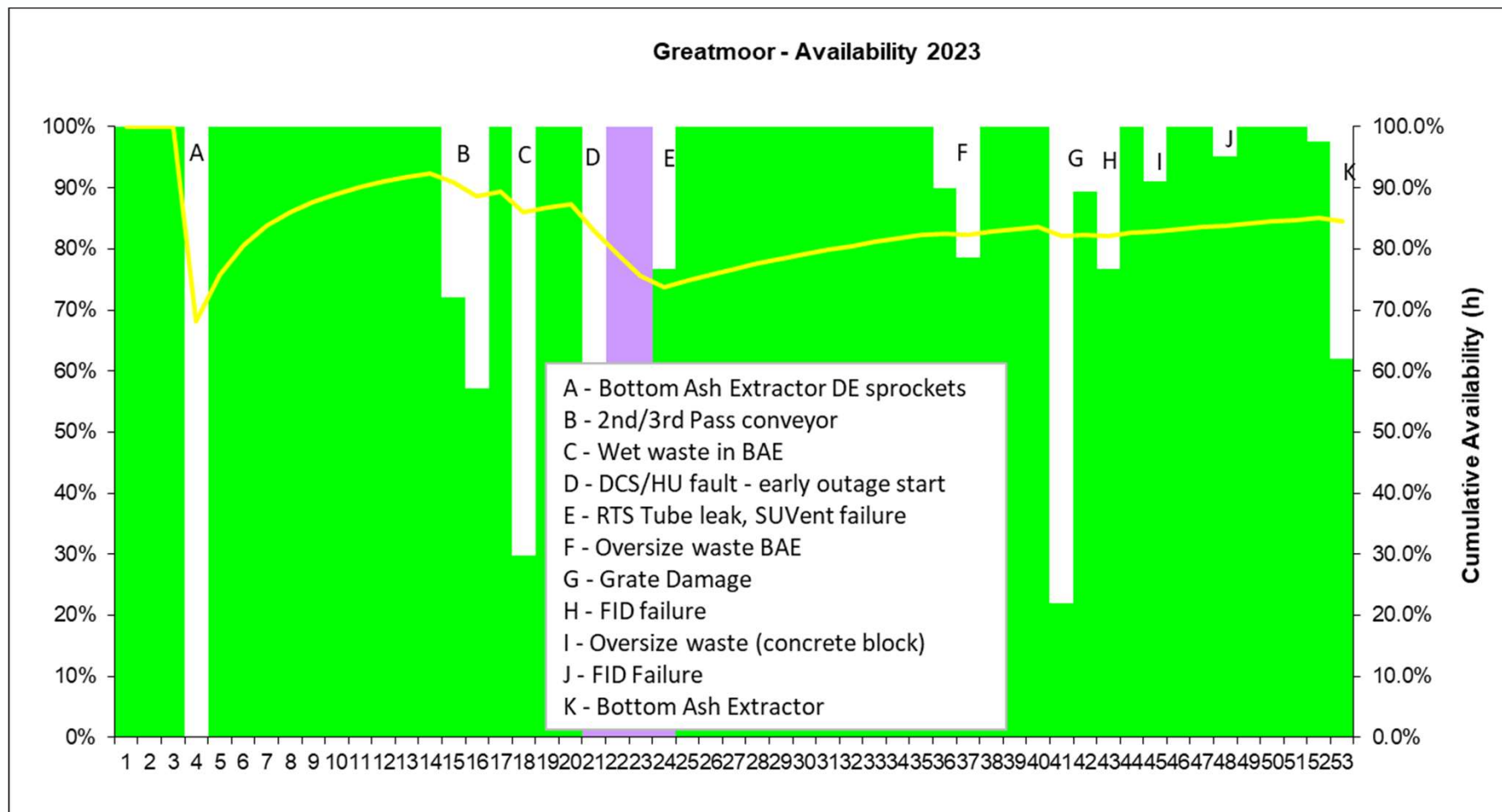
- Greatmoor – 6 incidents with 'Damage or Loss to' tag:
 - Forklift collided with roller shutter door
 - Bucket loader clipped corner of tipping hall wall.
 - Delivery lorry caught the fall arrest wire when manoeuvring under the silos
 - Key snapped off in the forklift ignition barrel
 - Wheelie bin blew across the courtyard.
 - Puncture on the access road.

Fire Related Events/Reports



- 9 events with 'Fire' label
 - One incident where contractors failed to sign out of the visitors book.
 - 7 incidents related to false fire alarms, 3 of which are related to a particular detection head.
 - 2 were related to explosions on the grate (as a result of gas bottles) – these are normally reported under the 'Environmental' tag.

Boiler Availability and Main Losses 2023



External and Access Road



- **Road Repairs;** Flooding on the bend with Breedons Concrete plant – overspilling into pasture to the west.
- **Ecological Mitigation areas;** Final improvements remain the clearing and profiling of 'pond A' by the old Calvert sports ground to encourage an increase in the GCN population and the installation of raptor boxes and platforms. Focus from now-on will be on maintaining the established habitat.





- **NO CHANGE**
- **Traffic management proposals** Installation of traffic lights complete – trial due to start tomorrow! (13 Feb 24)
- **HS2/EWR prep work** has begun. Timeline suggests works will take 5+ yrs.
- **HS2/Greatmoor Compound;** HS2 have taken over the old 'construction compound' adjacent to Lower Greatmoor Farm. This will be used for storage only – decision taken not to base any offices there.



- Outage window for 2024 confirmed:
 - Off waste: 00:01 Thursday 16 May 2024
 - Budgeted return Date: before 23:59 Wednesday 5 June 2024

- New Recruitment:
 - EC&I Tech x 1
 - Shift Operator x 1
 - Day Operators x 2
 - Domestic Cleaners x 2 (both p/t)



Environment



Environment Headlines



The site remains classified “Band A” by the Environment Agency.

- **Permit Notification:** One in October.
Both FID - CEMs went into fault. While attempting to re-start the FIDs, waste was charged for approximately 25 minutes. Combustion remained stable throughout, and all monitored substances remained at very low levels.
- **‘Abnormal Operation’:** None since 9th October CLG meeting.
Total for 2023 was 2 Abnormal Operations with a cumulative total of 1³/₄ hours.

Environment Headlines



- **Complaints:** none year to date.
- **Environmental Events:** One in December when a customer arrived at site with the wrong waste description on the transfer note. The load was inspected prior to being accepted and the paperwork corrected.
- **R1 Recovery status:** annual renewal to be submitted in February.

BREF Permit Variation



An EA initiated Permit variation was issued on 16th March with standard BREF changes and Improvement Conditions, such as:

- Improvement conditions to demonstrate low & stable Mercury & Dioxin emissions; and effective abatement of NO_x
- Lower Dioxin & Mercury triggers and a new Ammonia trigger.
- Brominated Dioxin monitoring added; & triplicate sampling of metals.
- Calibration of CO₂, N₂O and flow monitoring equipment.
- New management plan for start-up & shut down and 'Abnormal Operations'.

All conditions are compliant, and all improvement conditions have been submitted to the EA.

Emissions

CONTINUOUS MONITORING



PERMIT COMPLIANCE; Continuous

- Greatmoor EFW continuous measurement with CEMs under BS EN 14181.
- At the AST (Annual Surveillance Test) in May the Calibration for several substances was seen to have drifted. A QAL2 test was performed and new calibration functions applied in 2023.

Environmental Permit Limits (mg/m³).

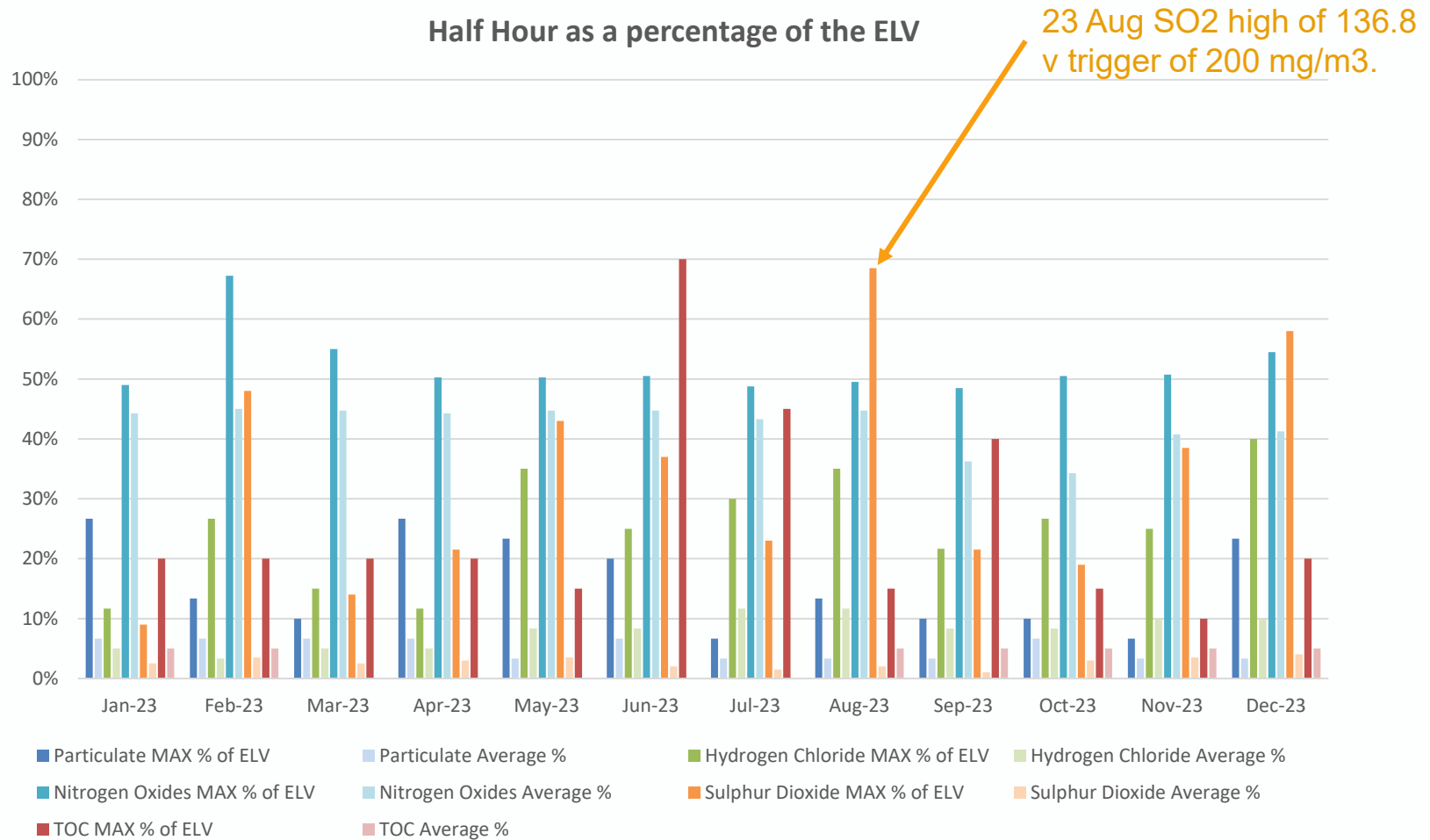
Greatmoor ELVs from 00:01 on Dec 3rd 2023

Substance	Half hour ave	Daily average	Comments
Dust	30 [†]	5	[†] under abnormal operation this increases to 150 mg/m ³ .
CO	95% 10-min ave 150	50	No half hour average.
TOC	20	10	
NOx	400	180	
HCL	60	8	
SO2	200	40	
NH3	n/a	15	There was no Ammonia ELV before 3/12/2023.

Dust, CO and TOC apply during abnormal operation



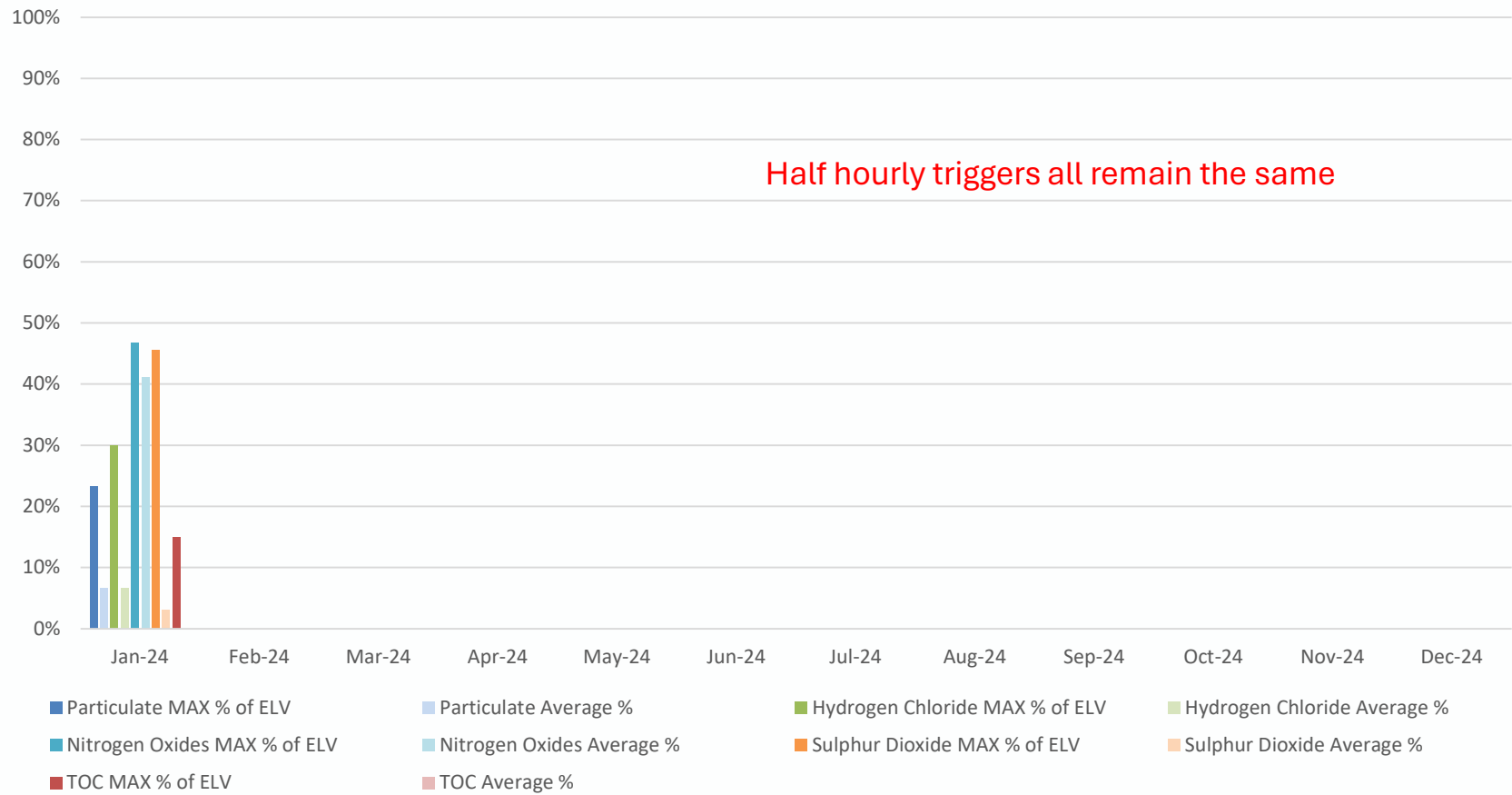
CEMS Emissions Year to date



CEMS Emissions year to date



Half Hour as a percentage of the ELV

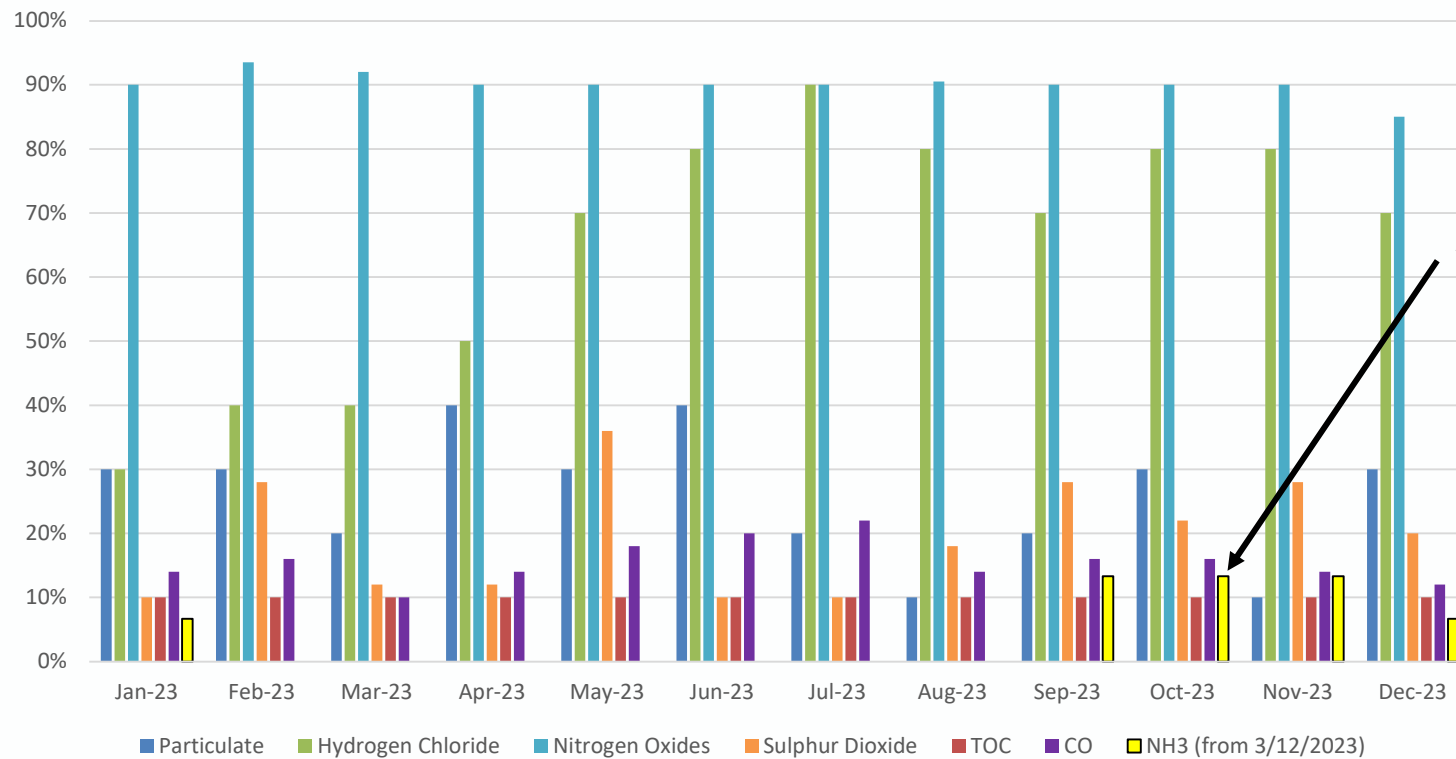


CEMS Emissions year to date

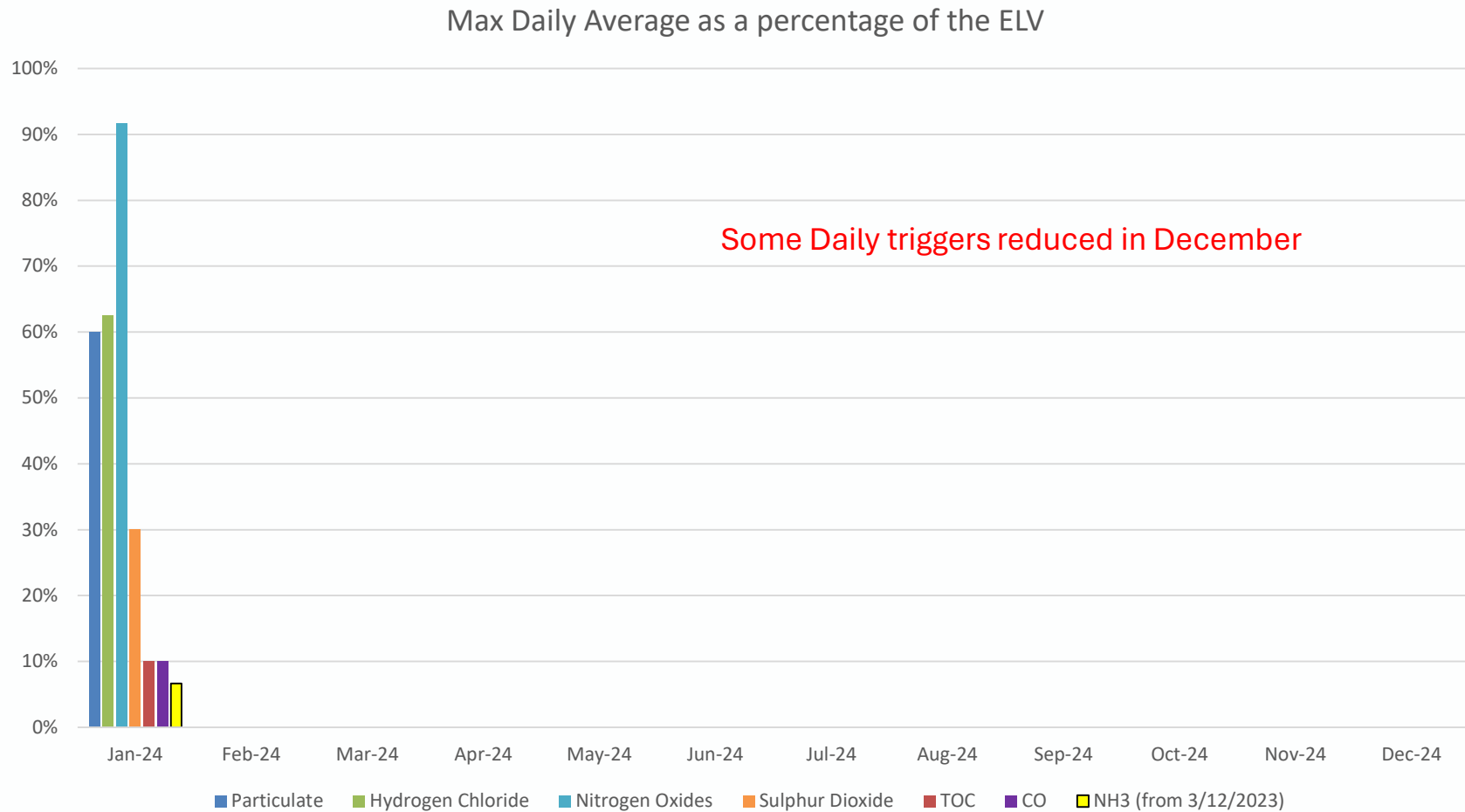


HCL level exceeding 8mg/m3 BREF trigger in late June, early July, and early August.

Max Daily Average as a percentage of the ELV



Ammonia slip – NOx abatement trial.





PERMIT COMPLIANCE; Periodic

- The AST (Annual Surveillance Test) is scheduled for March and will be conducted by 'Element'.
- Biannual (periodic) stack testing will occur in March and September. Also conducted by 'Element'.
- Changes in Emission limit Values from December under the new Environmental Permit.

Environmental Permit Limits (mg/m³).

	previous ELV	New ELV in 2024
Cadmium and Thallium	0.05mg/m3	0.02mg/m3
Heavy Metals	0.5mg/m3	0.3mg/m3
HF	2mg/m3	1mg/m3
Mercury	0.05mg/m3	0.02mg/m3

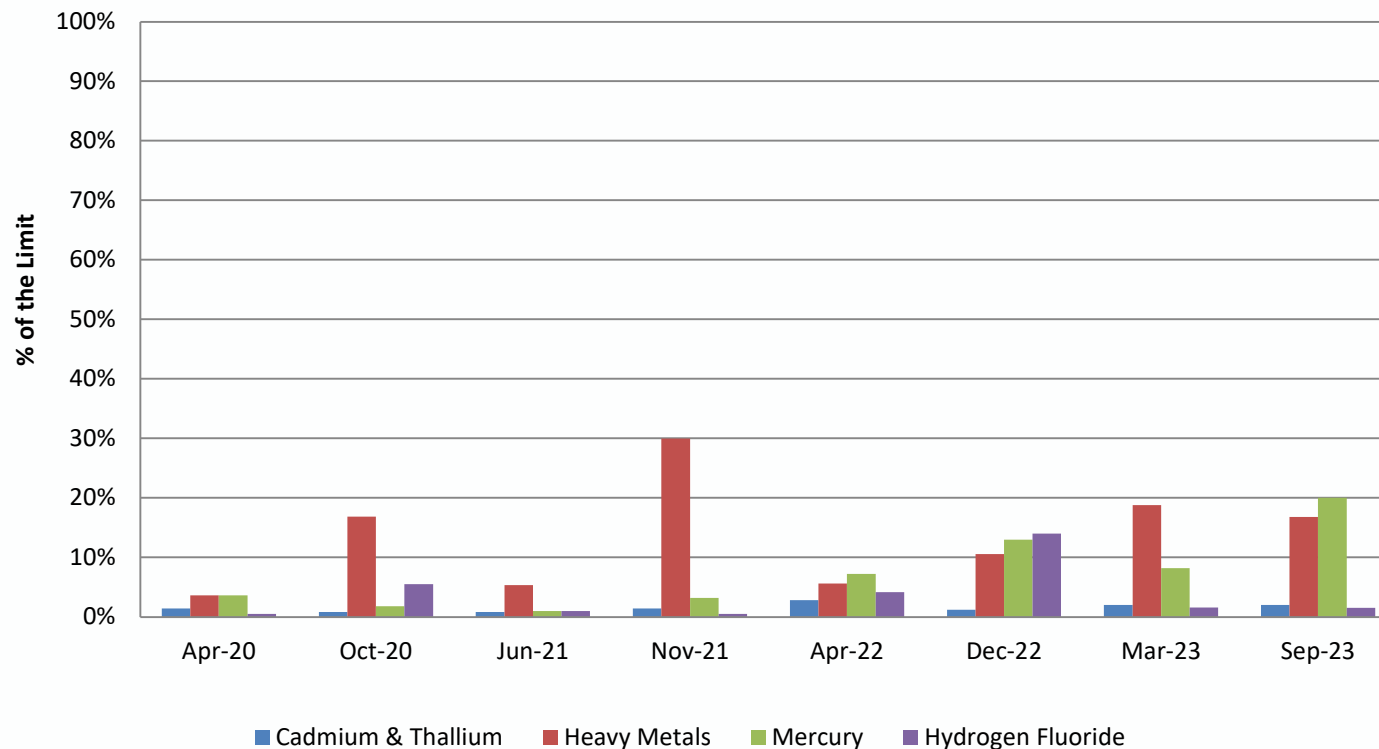


Periodic Emissions



Biannual stack testing:

Greatmoor 2018-2023, Emissions as a % of the Limit

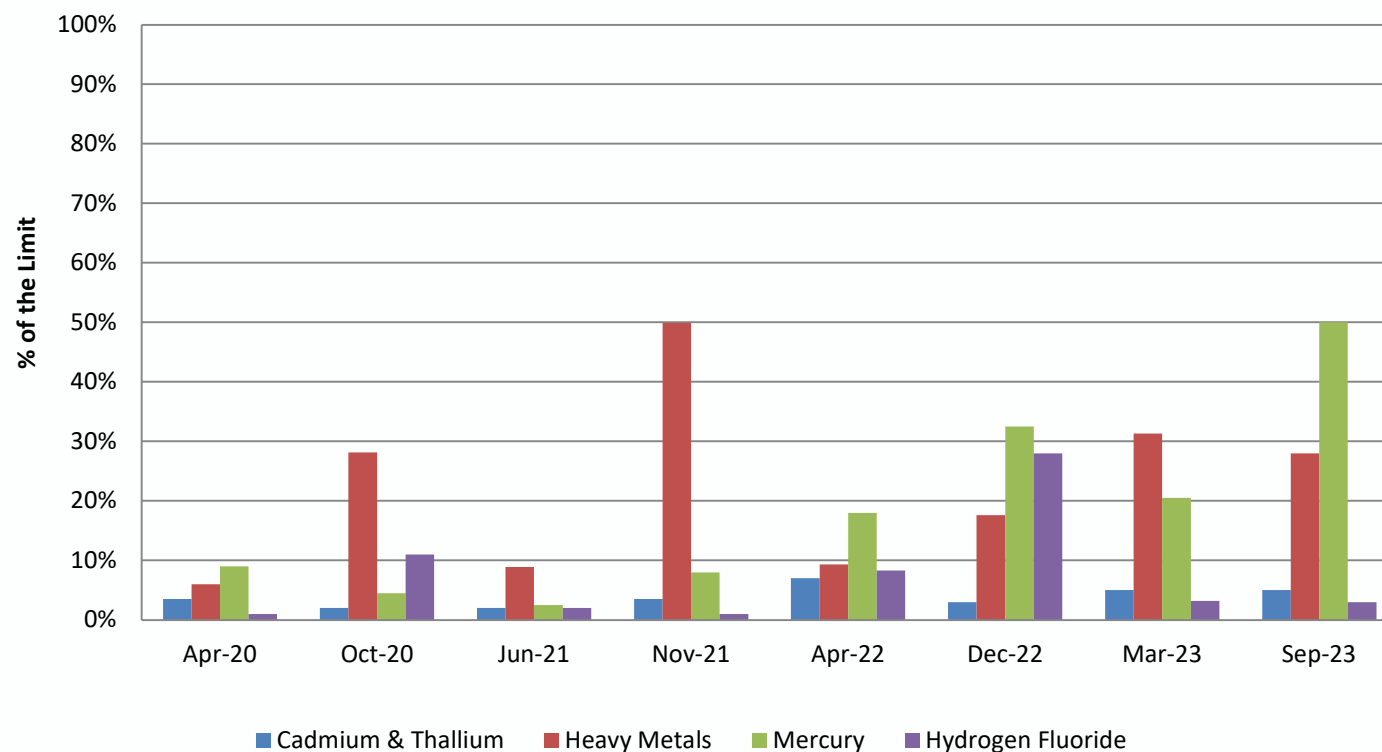


Periodic Emissions



Biannual stack testing:

Greatmoor 2018-2023, Emissions as a % of **BREF** ELV



Summary

- One Notification in 2023 – failure of FID CEMs.
 - QAL2 re-done in 2023 to correct instrument 'drift'
 - Continuous monitoring compliant with Permit.
 - Periodic stack testing compliant with Permit.
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- BREF:
 - new Permit triggers started on 3rd December 2023.
 - Improvement Conditions all submitted to the Environment Agency.



Visitor Centre



Visits To Greatmoor

Since last meeting (Oct 9th)

- 37 visits
- 39 tours
- 410 visitors (232 adults, 178 under 16s)

1 x Primary Schools

6 x Secondary Schools

1 x Adult Education

2 x Public Tours

4 x Cubs/Scouts

12 x Community Groups



Outreach Work

Since last meeting (Oct 9th)

- 20 Outreach Visits
- 1,358 attendees (441 adults, 917 under 16s)

7 x Primary School (4 assemblies, 9 classroom sessions)

6 x Adult Community Groups

1 x Rainbows

1 x Schools Careers Fair

4 x Public Events (BC Opportunity Bucks Days)

1 x Business (on-line presentation)



Scheduled Education Work

Currently scheduled up to May 3rd

- 28 Visits
- 16 Outreach Visits






Greatmoor
Energy From Waste