

Part B: Report on mercury releases to atmosphere October 2014

Permit Number: EPR/WP3836Z

Summary

A biannual test sampled 10 April 2014 was analysed as having mercury concentrations of 0.158 mg/m<sup>3</sup> compared to an ELV (Emission Limit Value) of 0.05 mg/m<sup>3</sup>.

There had been no history of out of consent mercury releases and no identified issues with the plant or abatement. A root cause analysis identified an unidentified, non-conforming waste item as having introduced increased mercury to the system. Customers were contacted in regard to non-conforming waste but none volunteered a possible source.

Real time monitoring using a calibrated mercury meter was subsequently carried out 29 May 2014 for over 2 hours and the reading recorded were:

Minimum: 0.0000 mg/m<sup>3</sup>

Maximum: 0.0050 mg/m<sup>3</sup>

Average: 0.0013 mg/m<sup>3</sup>

As such a subsequent re test sample was taken 30 June 2014 and the result was 35.0 mg/m<sup>3</sup>.

Real time monitoring using calibrated mercury meter was again carried out over 6 sampling runs, totalling over 6 hours over the three days, 19, 21 and 22<sup>nd</sup> August and the reading recorded were:

Minimum: 0.0000 mg/m<sup>3</sup>

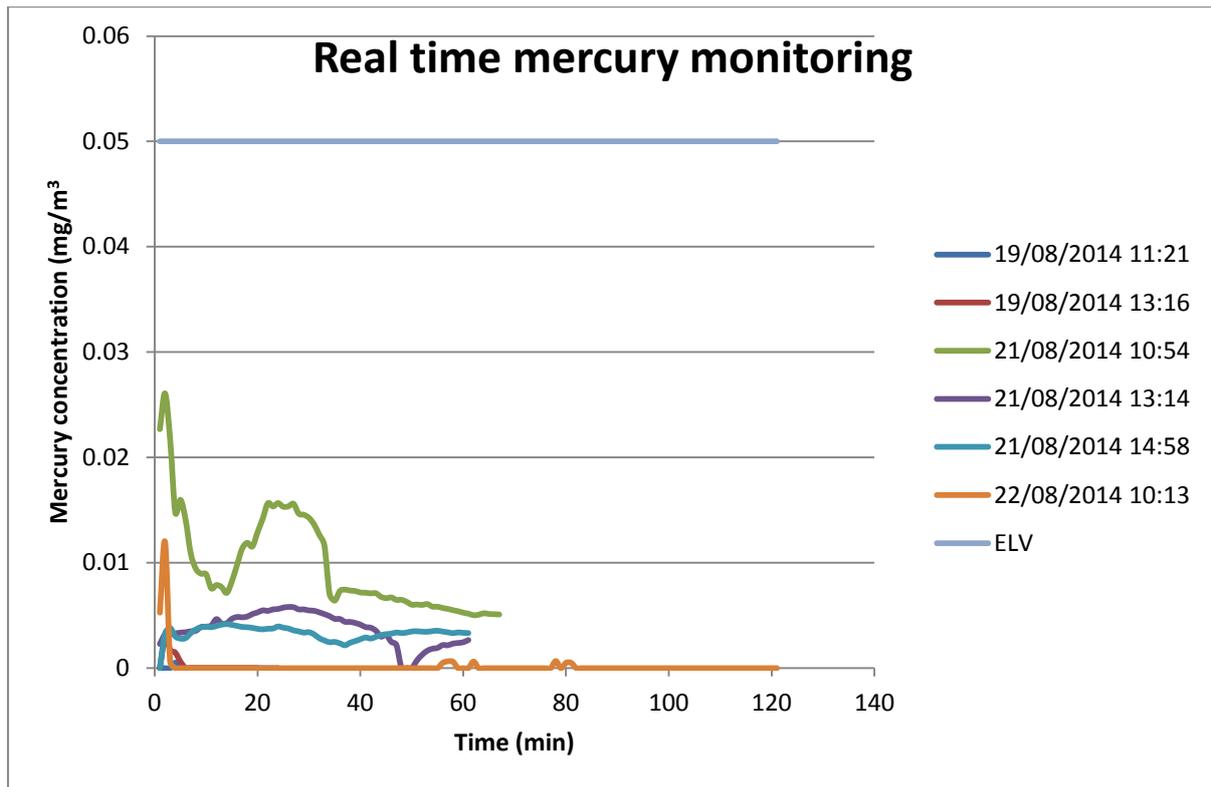
Maximum: 0.0261 mg/m<sup>3</sup>

Average: 0.0031 mg/m<sup>3</sup>

This was done with some identification of the waste being burnt but it was not possible to clearly identify any particular waste producer as a source of mercury.

The only discreet and identifiable increase in mercury concentration occurred at 11:08, 21 Aug 2014, and lasted for 21 minutes. This was well below the ELV with a maximum recorded concentration of 0.0157 ng/m<sup>3</sup>. Waste being charged at the time came from one of the following customers but it has not been possible to determine which exact one was charged immediately prior to the elevation in concentration.

SITA Rochester	Tradebe Ellesmere Port
Leighton (x2)	HES
Bangor (x2)	Stepping Hill
Wrexham Maelor	Llandudno



Customers were again contacted and a reminder given about non-conforming waste

A thorough inspection of the Abatement System was also carried out by a specialist contractor, Filtration Medic. This inspection was carried out 24 July 2014, with a planned completion date for the works of 25 Sep 2014 during the next planned shutdown.

The inspection of the abatement system has identified several issues although it is not believed that any are serious enough to have resulted in the elevated result. However, once all action items have been rectified another retest will be scheduled.

All items identified in the report were actioned during the shutdown.

A re-test was carried out by Catalyst on 17<sup>th</sup> October 2014. The result was well below the ELV (0.01mg/m<sup>3</sup>)

A further review of the waste being incinerated at the time of the breaches was carried out to see if any potential source could be identified. From the review of the documentation it has not been possible to narrow the source down any further.

#### Review of consignment notes from waste being processed at the time of the breaches.

A review of the consignment notes for waste being processed at the time of the breaches does not indicate that any waste other than the usual permitted waste types were being processed at the time.

On the 10<sup>th</sup> April the following customers wastes were being treated at the time:

SITA Healthcare Limited, Wrexham Clinical Waste Incinerator

Glan Clwyd Hospital: AAM998

18-01-03- Clinical waste

18-01-09 pharmaceutical

18-01-02- Anatomical

Ysbwty Gwynedd Hospital- AWM178

18-01-03- Clinical

18-01-02- Anatomical

18-01-08- Cytotoxic

18-01-09- pharmaceutical

Healthcare Environmental- NXP195

18-01-03- Clinical

18-01-08- Cytotoxic

18-01-09- pharmaceutical

Ravenshead care home

20-01-99- Other wastes

Alinson House

20-01-99- other wastes

Fieldway Care Home

20-01-99- other waste

Black Lake Residential Home

20-01-99- other waste

Poplars care home

20-01-99- other waste

Meir PCC- AMZ308

18-01-03- Clinical waste

Cheadle Health Centre- ABH603

SITA Healthcare Limited, Wrexham Clinical Waste Incinerator

18-01-08- Cytotoxic

Cheadle Hospital-ABH604

18-01-03- Clinical waste

CRI Meir- AIG928

18-01-03- Clinical waste

Cobridge Health Centre- AMZ306

18-01-03- Clinical waste

Middleton Medical Centre- AMZ307

18-01-03- Clinical waste

Milehouse PCC- AKX849

18-01-03- Clinical waste

On 30<sup>th</sup> June 2014 the following customers waste was being processed:

Healthcare Environmental

18-01-03- Clinical waste

18-01-04- Offensive waste

18-01-08- Cytotoxic

18-01-09- pharmaceutical

SITA Healthcare- Salford Royal- NMY531

18-01-03- Clinical waste