Proposal to Display Rookery South Emissions Data

Emissions from the Rookery South Energy Recovery Facility (ERF) are monitored on a continuous basis 24 hours per day and 7 day per week, a requirement of all operational Energy from Waste plants in UK, which in England are set out in the Environmental Permits, which are regulated by the Environment Agency.

Samples are taken from the flue of each Rookery South's three processing lines and passed to a suite of analysers with the results being displayed in the control room continuously and recorded by a dedicated computer for data storage and Environment Agency reporting.

The graphs and tables presented in the monthly emissions report are in the same style (and from the same data management system) as those used by the operators in the control room at Rookery South. This system, Envirosoft, is a certified software package meeting the requirements of the Environment Agency accredited Monitoring Certification Scheme (MCERTS).

The emissions from Rookery South ERF are reviewed by the Environment Agency, who set strict limits of the different gas species using 10 minute, 30 minute or daily average values. These limits are dictated for the facility in the conditions of the Environmental Permit and are referred to on these reports as the Emission Limit Value (ELV).

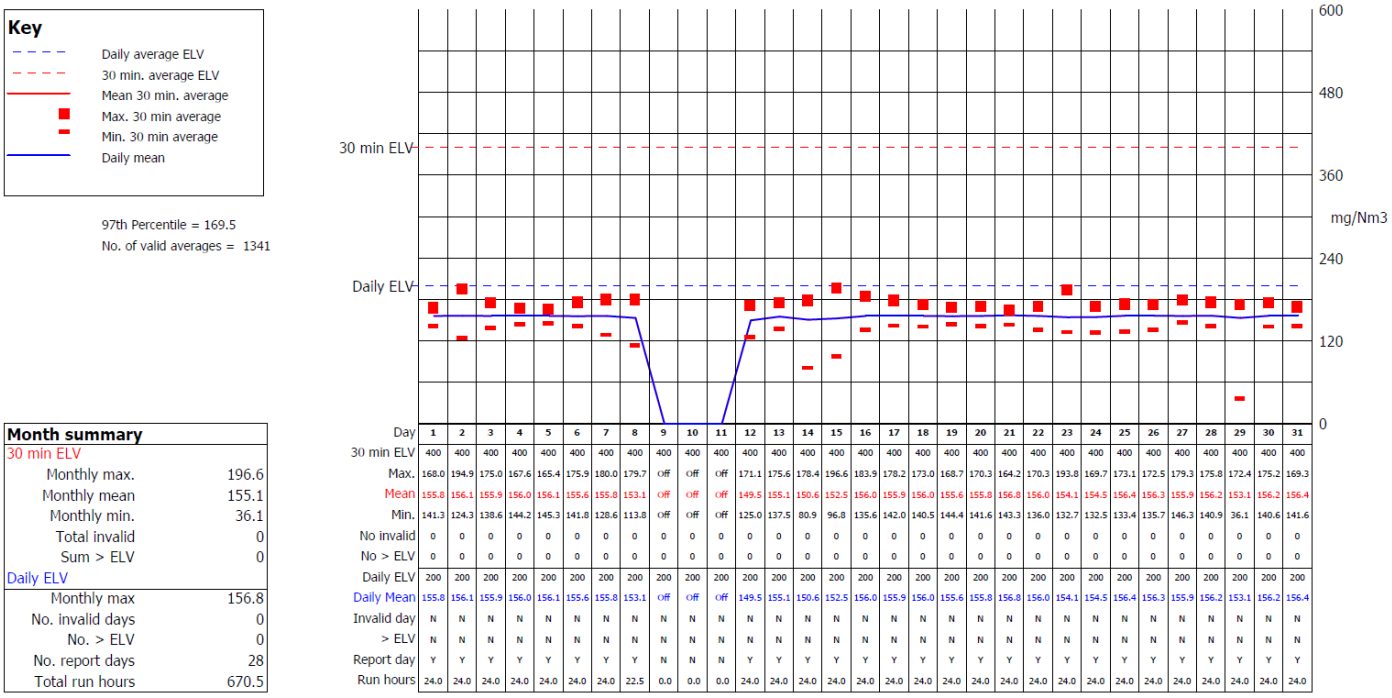
The ELV for each emission, and for each time period, are stated in the reports below and have been set by the Environment Agency at levels which ensure that there will be no significant impact on the environment or on human health. Should any of these limits be exceeded then the Operator is required to notify the Environment Agency within 24 hours. Such an event is referred to as an Exceedence.

There are three reports available for each of the monitored gas species and these represent the three emissions points at Rookery South. These are labelled A1, A2 and A3 and each data set is produced by an individual suite of monitoring equipment.

Phase 7

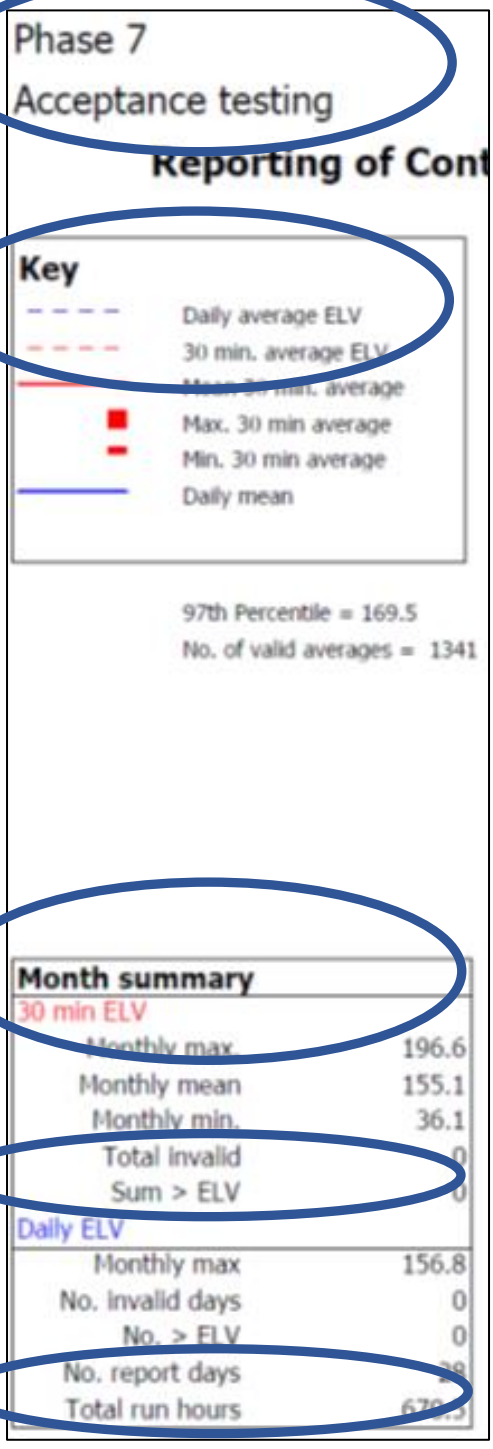
Acceptance testing

Reporting of Continuously Monitored Emissions to Air for NO_x , Emission Point Line 1 Rep. for Dec, 2021



Month summary	
30 min ELV	
Monthly max.	196.6
Monthly mean	155.1
Monthly min.	36.1
Total invalid	0
Sum > ELV	0
Daily ELV	
Monthly max	156.8
No. invalid days	0
No. > ELV	0
No. report days	28
Total run hours	670.5

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
30 min ELV	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
Max.	168.0	194.9	175.0	167.6	165.4	175.9	180.0	179.7	Off	Off	Off	171.1	175.6	178.4	196.6	183.9	178.2	173.0	168.7	170.3	164.2	170.3	193.8	169.7	173.1	172.5	179.3	175.8	172.4	175.2	169.3
Mean	155.8	156.1	155.9	156.0	156.1	155.6	155.8	153.1	Off	Off	Off	149.5	155.1	150.6	152.5	156.0	155.9	156.0	155.6	155.8	156.8	156.0	154.1	154.5	156.4	156.3	155.9	156.2	153.1	156.2	156.4
Min.	141.3	124.3	138.6	144.2	145.3	141.8	128.6	113.8	Off	Off	Off	125.0	137.5	80.9	96.8	135.6	142.0	140.5	144.4	141.6	143.3	136.0	132.7	132.5	133.4	135.7	146.3	140.9	36.1	140.6	141.6
No invalid	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No > ELV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daily ELV	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Daily Mean	155.8	156.1	155.9	156.0	156.1	155.6	155.8	153.1	Off	Off	Off	149.5	155.1	150.6	152.5	156.0	155.9	156.0	155.6	155.8	156.8	156.0	154.1	154.5	156.4	156.3	155.9	156.2	153.1	156.2	156.4
Invalid day	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
> ELV	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Report day	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Run hours	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.5	0.0	0.0	0.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0



Identifies the nature or location of operations.

Identifies any relevant colour coding for the various graphs. For simplicity all graphs have been given default settings of blue for short interval measurements and red for daily measurements.

A summary of the 10 minute, 30 minute or daily averages for the month in hand.

Identifies the total number of invalid readings for the month and the total number of emission exceedences (if applicable).

Identifies the number of valid reporting days included in the data presented and the number of operational hours these include.

Invalid data.

Every day the emissions monitoring systems are calibrated, a process which takes approximately 20 minutes and which is stipulated as a requirement in the Environmental Permit. This process can interfere with the collection of data and is shown as an invalid result. This is a standard practice which only affects short duration measurements (the ten minute average for carbon monoxide mostly). Other process conditions and routine servicing activity may also cause occasional periods of invalid data and the total number of readings lost in this way will be recorded on each report. The validation rules for valid / invalid data are stated in the Environmental Permit.

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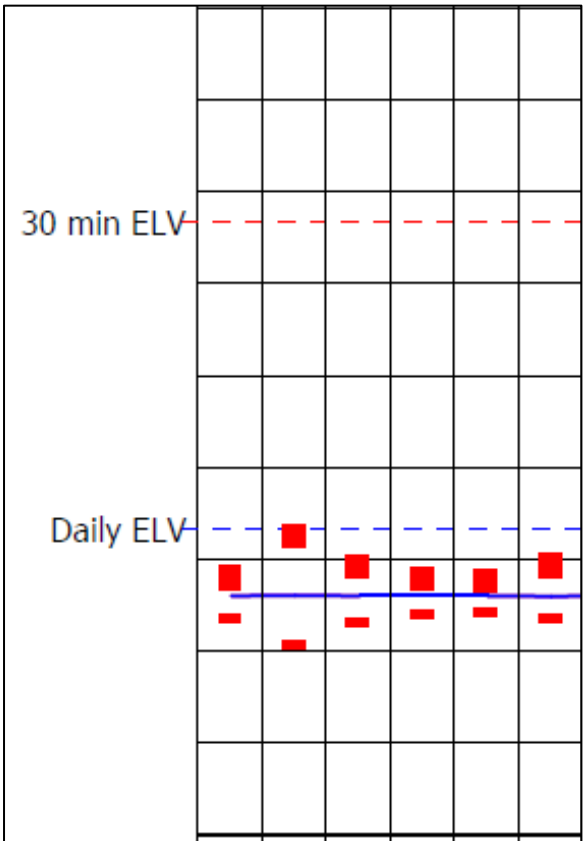
Reporting of Continuously Monitored Emissions to Air for NO_x , Emission Point Line 1 Rep. for Dec, 2021

1 2 3

1. The emission species being reported.
2. Which Line the report refers to; 1, 2 or 3.
3. The calendar month for this report.



The upper limit for a 30-minute reading.

The upper limit for a Daily Average reading

The reported values for any given day as taken from the raw data in the table below.

Day	1	2	3	4	5	6
30 min ELV	400	400	400	400	400	400
Max.	168.0	194.9	175.0	167.6	165.4	175.9
Mean	155.8	156.1	155.9	156.0	156.1	155.6
Min.	141.3	124.3	138.6	144.2	145.3	141.8
No invalid	0	0	0	0	0	0
No > ELV	0	0	0	0	0	0
Daily ELV	200	200	200	200	200	200
Daily Mean	155.8	156.1	155.9	156.0	156.1	155.6
Invalid day	N	N	N	N	N	N
> ELV	N	N	N	N	N	N
Report day	Y	Y	Y	Y	Y	Y
Run hours	24.0	24.0	24.0	24.0	24.0	24.0

The raw data for all of the valid half hour periods of the day showing maximum, minimum and average values.

In this example there are no Invalid readings for the day and there were no 30-minute readings above the Emission Limit Value.

This section shows the daily average reading (the arithmetic average of all valid half hour readings) and indicates that the day was NOT invalid, was NOT over the daily limit, that there were a full 24 hours of data recorded and that the day IS reportable.