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01 JUL 2013

Warwick Chemicals

TO: Mr I. Oakes / Miss J. Bradley
FROM: Mrs K. Cuning
DATE: 1st July 2013
Total no. of sheets: 21

Please find attached the emission results for the second quarter 2013:

RCF49 (Reporting Quarterly Emissions for Acetic Acid from A2-A23)
RCF66 (Fly Ash composition 1st quarter 2013),
x 3 (CEM's Emissions of Particulate from A14)
x 3 (CEM's Emissions of TOC from A14)
x 3 (CEM's Emissions of Carbon Monoxide from A14)
x 3 (CEM's Emissions of Oxides of Nitrogen from A14)
x 6 (Summary of Data for April, May and June 2013)
in accordance with the requirements of our PPC Permit BU2357

Thank you

Regards

K. Cuning

Karen Cuning
HSE Systems Specialist

eareturn/2qu13letter (1/7/13)

MONITORING RETURNS N. WALES

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JB *Edem*

TITLE : Reporting of Emissions to Air		ISSUE NO.: 4.0
REF : RCF49	AREA:	DATE OF ISSUE: 16.06.11
RELATED DOCUMENT: AS4362-S2/A/2	Responsible Care	PAGE: 1 of 2
FILENAME: 492qu13	Last printed 02/05/2013 14:41:00	

Permit Reference Number BU2357/AP3338MA	Operator: Warwick Chemicals
Installation : Mostyn, Flintshire	Form Number : AI (TAED & Sodium Acetate Processes)

Annual Reporting of Emissions to Air for the period:		To: 30th June 2013
From: 1st April		

Emission Point	Substance/Parameter	Emission Limit Value	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Accreditation/ Certification ^[4]	Uncertainty ^[5]
A2	Acetic acid	50mg/m ³ [6]	21.8	SOP5100 CD/FID/GC	17/4/13 09:37-16:22	Validation Report No. MV1ES586	+/- 10%
A3	Acetic acid	50mg/m ³ [6]	22.3	"	17/4/13 09:46-16:15	"	"
A5	Acetic acid	50mg/m ³ [6]	27.2	"	16/4/13 09:15-16:45	"	"
A6	Acetic acid	50mg/m ³ [6]	2.9	"	18/4/13 10:14-14:41	"	"
A7	Acetic acid	50mg/m ³ [6]	0.27	"	16/4/13 09:22-16:52	"	"
A20	Acetic acid	50mg/m ³ [6]	0.31	"	17/4/13 09:28-16:28	"	"
A22	Acetic acid	50mg/m ³ [6]	0.30	"	17/4/13 09:28-16:28	"	"
A23	Acetic acid	50mg/m ³ [6]	0.31	"	17/4/13 09:28-16:28	"	"
A24	Acetic acid	50mg/m ³ [6]	#	#	#	#	#

Emission point no longer monitored – plant decommissioned

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum' – maximum measured values.

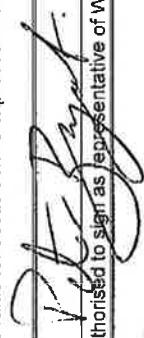
[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. gas chromatography.

[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

[4] The accreditation status of the equipment and/or the monitoring organisation, as appropriate, for the methods, used for both sampling and analysis.

[5] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

[6] The emission limit value for acetic acid is expressed as total acetic acid and acetic anhydride (as acetic acid) as a maximum individual value, and corrected to 273K, 101.3kPa

Signed:	 (Authorised to sign as representative of Warwick Chemicals)
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Date:	22 nd April 2013
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TITLE :		Reporting of Emissions to Air		ISSUE NO.	3.0
REF :	RCF66	AREA:	Responsible Care	DATE OF ISSUE:	16.06.11
RELATED DOCUMENT:	AS4362 - S2/A/2	Last printed 16/05/2013 14:12:00		PAGE:	1 of 1
FILENAME:	662qu13				



Permit Reference Number	BU2357/AP3634SJ	Operator	Warwick Chemicals
Installation	Mostyn, Flintshire	Form Number	Ash1 / Ash Disposal Change

Reporting of Fly Ash Composition for the period	from	1 st April	to	30th June 2013
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Ash Composition (Metals, Dioxins, etc.)															
	Cd %	Ti %	Hg %	Pb %	Cr %	Cu %	Mn %	Ni %	As %	Co %	V %	Zn %	DIOXIN		
													DIOXIN I-TEQ ng/kg		
													WHO-TEQ ng/kg		
Fly Ash	1.0	10.0	1.0	11.0	420	92	61	310	1.0	10.0	10.0	320	Humans/ mammals	8.0274	
													Birds	11.5045	
													Fish	9.0745	

Signed	<i>H. Curran</i>	Date	10th May 2013
(Authorised to sign as representative of Warwick Chemicals)			



Title: Reporting Incinerator CEM

Area: Manufacturing

Issue No.: 1

Ref:

Last printed: 02/05/2013

Date of Issue: 21/12/2006

Related Document: BU2357/AP3634

Page: 1 of 2

Incinerator Summary Report - April 2013

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Running time	21.5	24	24	24	24	24	24	24	24	24	22.6	24	24	24	18.5	13.5	24	24
Gas	2.5	0	0	0	0	0	0	0	0	0	1.5	0	0	0	3.5	11	0	0
Residue & gas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0
Idle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
Total flow	8568	8608.7	8600	8610.2	8600.3	8600.3	8600	8599.8	8602.2	8600.2	8052.2	8612.8	8601.3	8604.3	7419	2548.2	8601.7	8121.7
Gas	419.2	0	0	0	0	0	0	0	0	0	209.3	0	0	0	601.5	1810	0	0
Air	13034.8	125690	125949	127549	125961	133098	132523	132845	133121	131524	130690	135319	137294	145037	150752	138157	138518	118055
NOx (normalised)	99	117.7	125	122	122	137.7	195	168	117.3	118.7	112.7	109	105	100.3	105	108.7	96.3	108.7
Min	132.8	136.9	149.8	133.9	134.9	157.5	218.7	208.5	179.9	124.8	144.5	115.2	112.2	108.5	122.5	128	108.8	216.3
Ave	484.7	195.7	177.3	148.3	182.7	198	245.7	289	284	134	340.7	120.3	119	112	353.3	451.3	111.3	388.3
Max	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Exceeds daily ELV ?	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
CO (normalised)	Min	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4
Ave	-3.9	-4	-4	-4	-4	-4	-4	-4	-4	-4	-3.9	-3.8	-4	-4	-4	-3.9	-3.8	-3.8
Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30m ELV exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exceeds daily ELV ?	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Particulates (normalised)	Min	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.6	0.7	0.7	0.7	0.6
Ave	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.7	0.7	0.8	0.7	0.7
Max	0.4	0.5	0.5	0.4	0.4	0.6	0.6	0.4	0.4	0.4	0.4	0.4	0.6	0.8	0.8	1	0.8	0.8
30m ELV exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exceeds daily ELV ?	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
VOC (normalised)	Min	0.5	0.8	0.7	0	0	0	0	0	0	0	0	0	0	0	0.5	0.5	0.7
Ave	0.6	0.9	0.9	0.4	0	0	0	0	0	0	0	0	0	0	0	0.4	0.9	1
Max	2.1	1	1	1	0	0	0	0	0	0	0	0	0	0.8	1.8	1.3	1	1.5
30m ELV exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exceeds daily ELV ?	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

NOTES

Invalid data points are not reported because the Incinerator is not operated at any time whilst CEM equipment is being maintained or calibrated

Title: Reporting Incinerator CEM

Area: Manufacturing

Issue No.: 1

Last printed: 02/05/2013

Date of issue: 21/12/2006

Ref:

Related Document: BU2357/AP3634

Created on: 21-12-2006

Page: 2 of 2

Incinerator Summary Report - April 2013

Day	19	20	21	22	23	24	25	26	27	28	29	30	TOTALS
Running time	24	21.5	21	13.6	22.5	24	19.5	24	20	19	12.5	23	856.6
Residue	h	h	h	h	h	h	h	h	h	h	h	h	65
Gas	0	2.5	3	11	1.5	0	5.5	0	4	6	12.5	1.5	65
Residue & gas	h	h	h	h	h	h	h	h	h	h	h	h	3.5
Idle	0	0	0	0	0	0	0	0	0	0	0	0	2
Total flow	7800.2	6818.2	6747.5	5254.8	9039	5801.2	7552.7	5802.8	7714.8	7629	4725.2	9056.8	255 tonnes
Gas	0	399.8	517.2	1882.2	201	0	889.7	0	889.3	824.2	2118.3	230.7	10772 m3
Air	112817	113486	112808	137105	138562	138940	133703	135171	132279	131164	131588	127978	9853469 m3
Min	176.3	60.7	64.7	112	111.3	143.3	105.3	133.7	60.3	88.7	76.7	88.7	
Ave	214.7	172.8	145.3	136	142.4	156.8	152.9	273.3	130.2	112	110.2	105	
Max	247.3	204.7	533.3	396.3	282.7	187.7	409	451.7	385	343	285	217	
Exceeds daily ELV ?	N	N	N	N	N	N	N	N	N	N	N	N	0 exceedances
Min	-4	-4	-4	-3	-3.5	-3.8	-3.9	-3.9	-3.9	-3.2	-4.2	-4	
Ave	-4	-3.9	-3.7	-2.8	-2.9	-3.1	-3.3	-3.3	-3.1	-2.9	-2.9	-3.9	
Max	0	0	0	0	0	0	0	0	0	0	0	0.1	
30m ELV exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0 exceedances
Exceeds daily ELV ?	N	N	N	N	N	N	N	N	N	N	N	N	0 exceedances
Min	0.7	0.5	0.7	0.4	0.4	0.7	0.5	0.7	0.3	0.7	0.5	0.9	
Ave	0.7	0.7	0.7	0.6	0.5	0.8	0.8	0.8	0.7	0.7	0.7	0.7	
Max	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.8	0.9	0.9	0.8	
30m ELV exceedances	0	0	0	0	0	0	0	0	0	0	0	0	
Exceeds daily ELV ?	N	N	N	N	N	N	N	N	N	N	N	N	0 exceedances
Min	1	0.6	1	1	1	1	1	1	0.4	1	0.1	0	
Ave	1	1.1	1.3	1.1	1.1	1	1	1.2	1.1	1.2	1	0.9	
Max	1.3	1.5	3.4	1.6	3	1.5	1.9	1.5	2.9	2.5	1.5	2.3	
30m ELV exceedances	0	0	0	0	0	0	0	0	0	0	0	0	
Exceeds daily ELV ?	N	N	N	N	N	N	N	N	N	N	N	N	0 exceedances

NOTES

Invalid data points are not reported because the incinerator is not operated at any time whilst CEM equipment is being maintained or calibrated

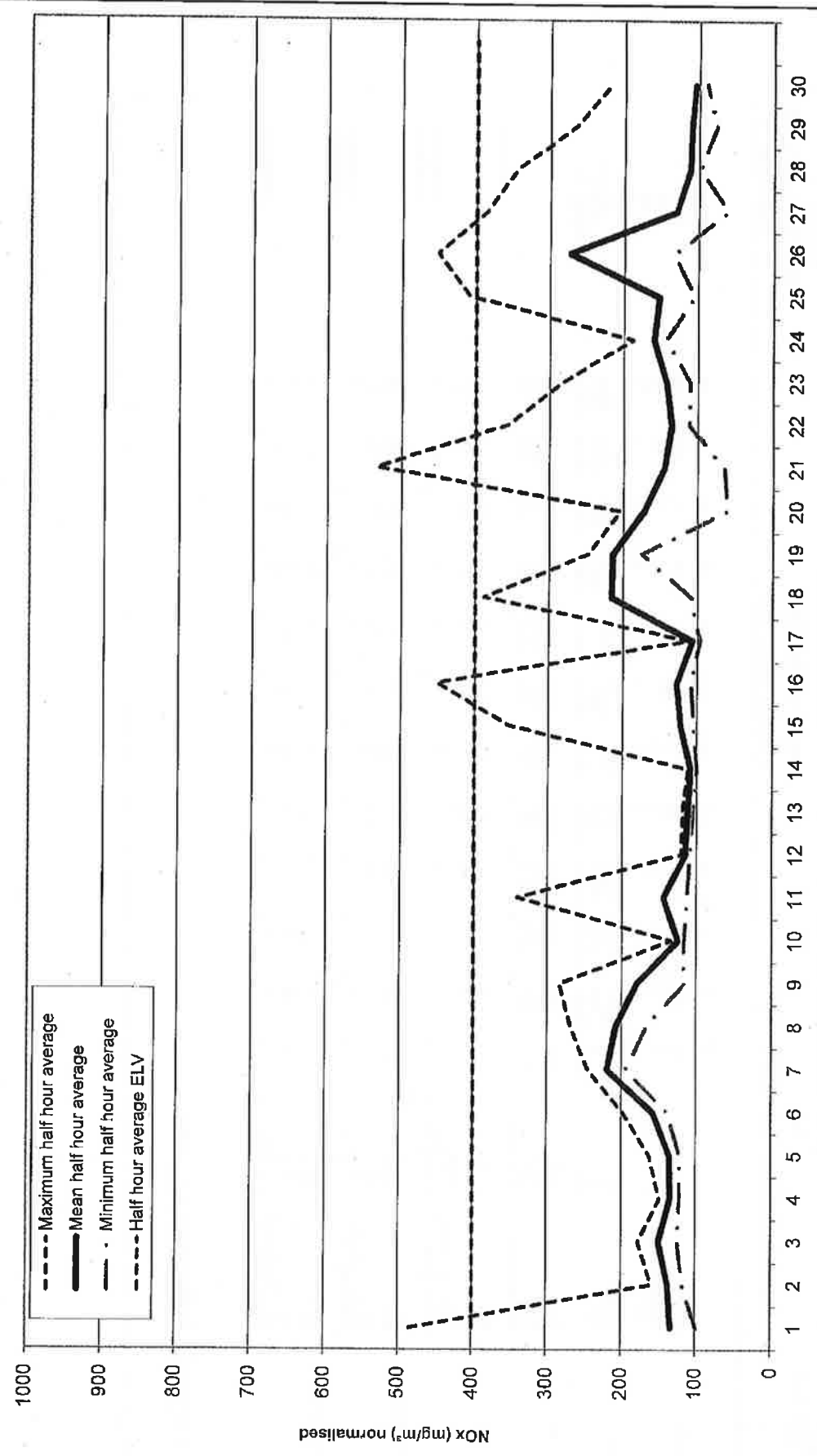
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 Invalid data points are not reported because the incinerator is not operated at any time whilst CEM equipment is being maintained or calibrated

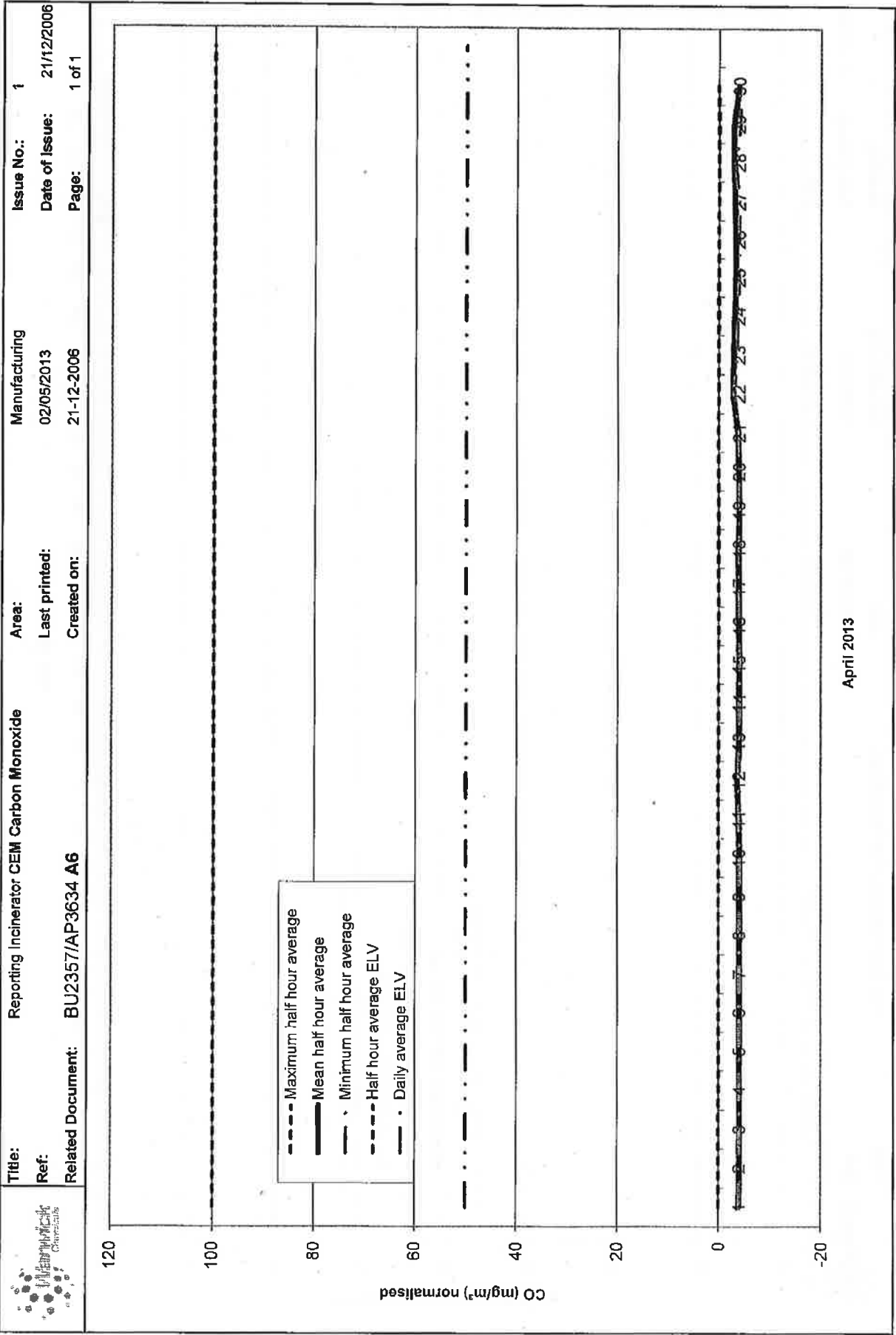


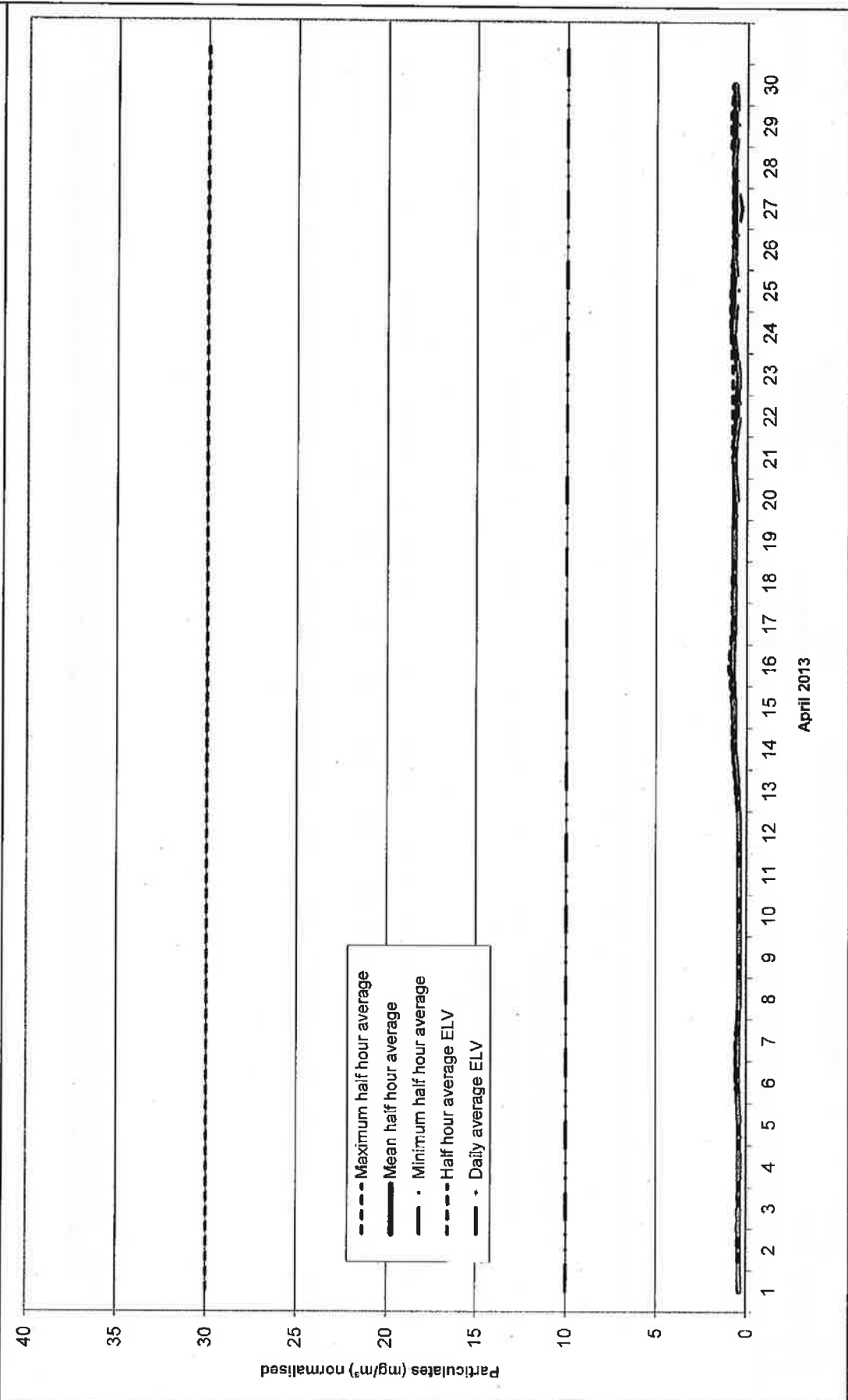
Title: Reporting Incinerator CEM Oxides of Nitrogen
Ref: BU2357/AP3634 A7
Related Document: BU2357/AP3634 A7

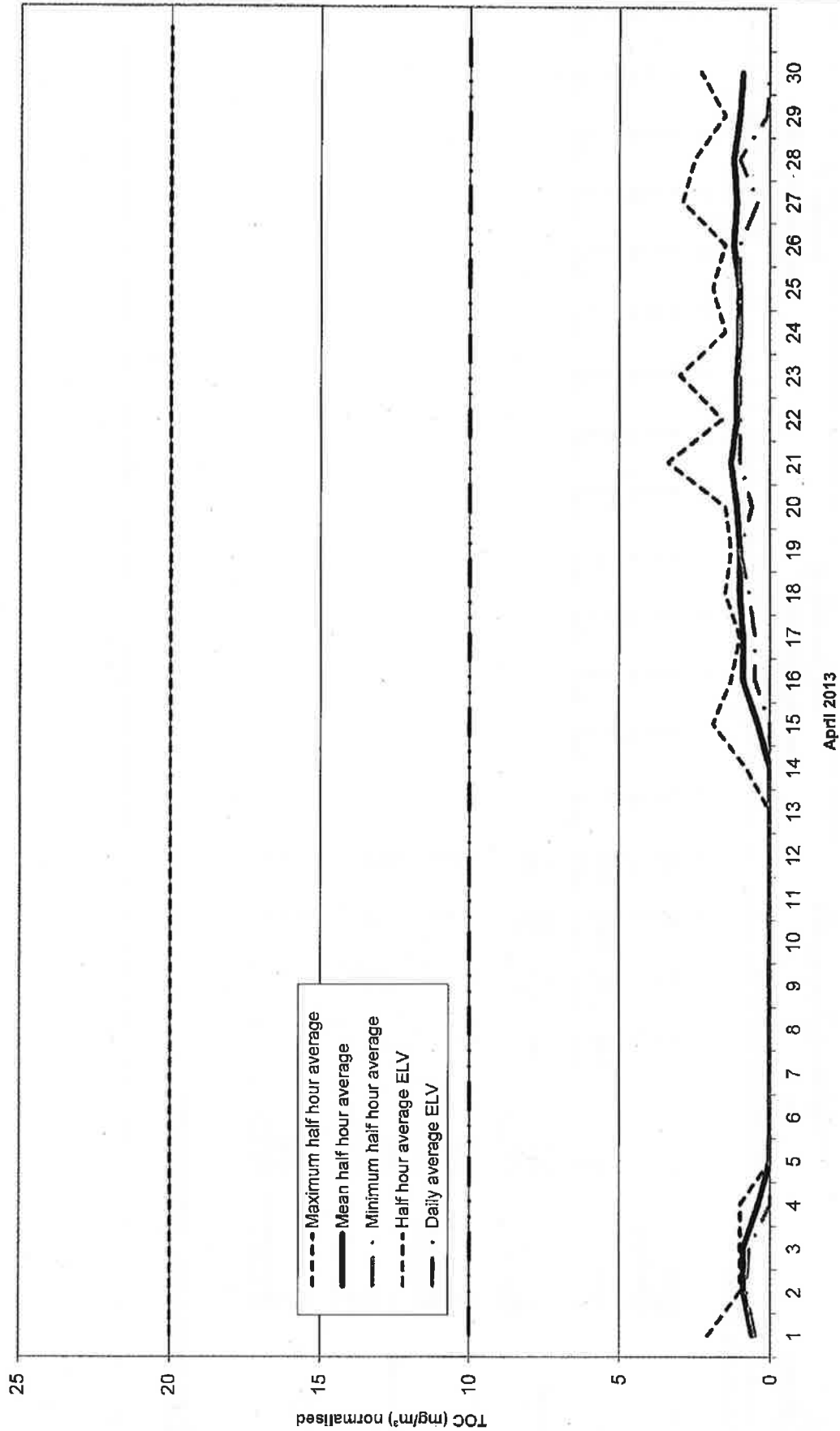
Area: Manufacturing
Last printed: 02/05/2013
Created on: 21-12-2006

Issue No.: 1
Date of issue: 21/12/2006
Page: 1 of 1



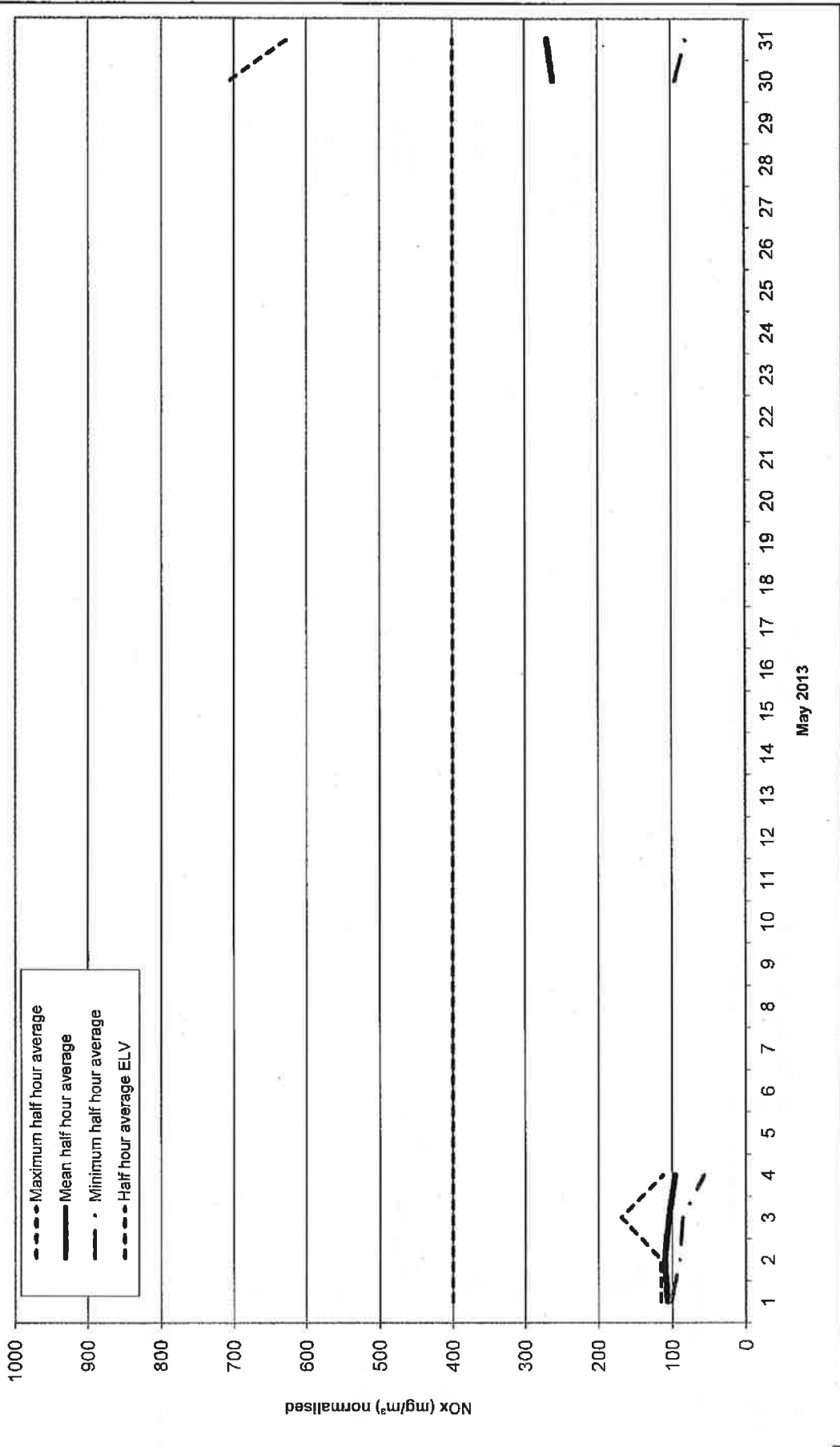






Title: Reporting Incinerator CEM		Area: Manufacturing										Issue No.: 1									
Ref:		Last printed: 03/06/2013										Date of issue: 21/12/2006									
Related Document: BU2357/AP3634		Created on: 21-12-2006										Page: 1 of 2									
Incinerator Summary Report - May 2013																					
Day		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
Running time	Residue	24	24	24	23.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Gas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Residue & gas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Idle	0	0	0	0.5	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	
Total flow	Residue	9595.8	9800	9600.2	9308.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Gas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
NOx (normalised)	Air	129446	127291	128535	135700	52106	46769	52409	48500	26935	31845	26816	30754	35788	29323	24348	26729	35567	46224		
	Min	101.7	90	85.7	56.7																
	Ave	106.4	110.2	104.5	96.4																
	Max	115.3	115.7	103.3	112.7																
	Exceeds daily ELV ?	N	N	N	N																
CO (normalised)	Min	-4	-4	-4	-4																
	Ave	-4	-4	-4	-3.9																
	Max	0	0	0	0																
	30m ELV exceedances	0	0	0	0																
	Exceeds daily ELV ?	N	N	N	N																
Particulates (normalised)	Min	0.7	0.7	0.7	0.5																
	Ave	0.7	0.8	0.8	0.8																
	Max	0.8	0.9	0.8	0.9																
	30m ELV exceedances	0	0	0	0																
	Exceeds daily ELV ?	N	N	N	N																
VOC (normalised)	Min	0	0	0	0																
	Ave	0	0	0	0																
	Max	0	0	0	0																
	30m ELV exceedances	0	0	0	0																
	Exceeds daily ELV ?	N	N	N	N																
NOTES																					
Invalid data points are not reported because the Incinerator is not operated at any time whilst CEM equipment is being maintained or calibrated																					

NOTES
Invalid data points are not reported because the Incinerator is not operated at any time whilst CEM equipment is being maintained or calibrated





Title:

Reporting Incinerator CEM Carbon Monoxide

Area:

Manufacturing

Issue No.: 1

Ref:

Last printed:

03/06/2013

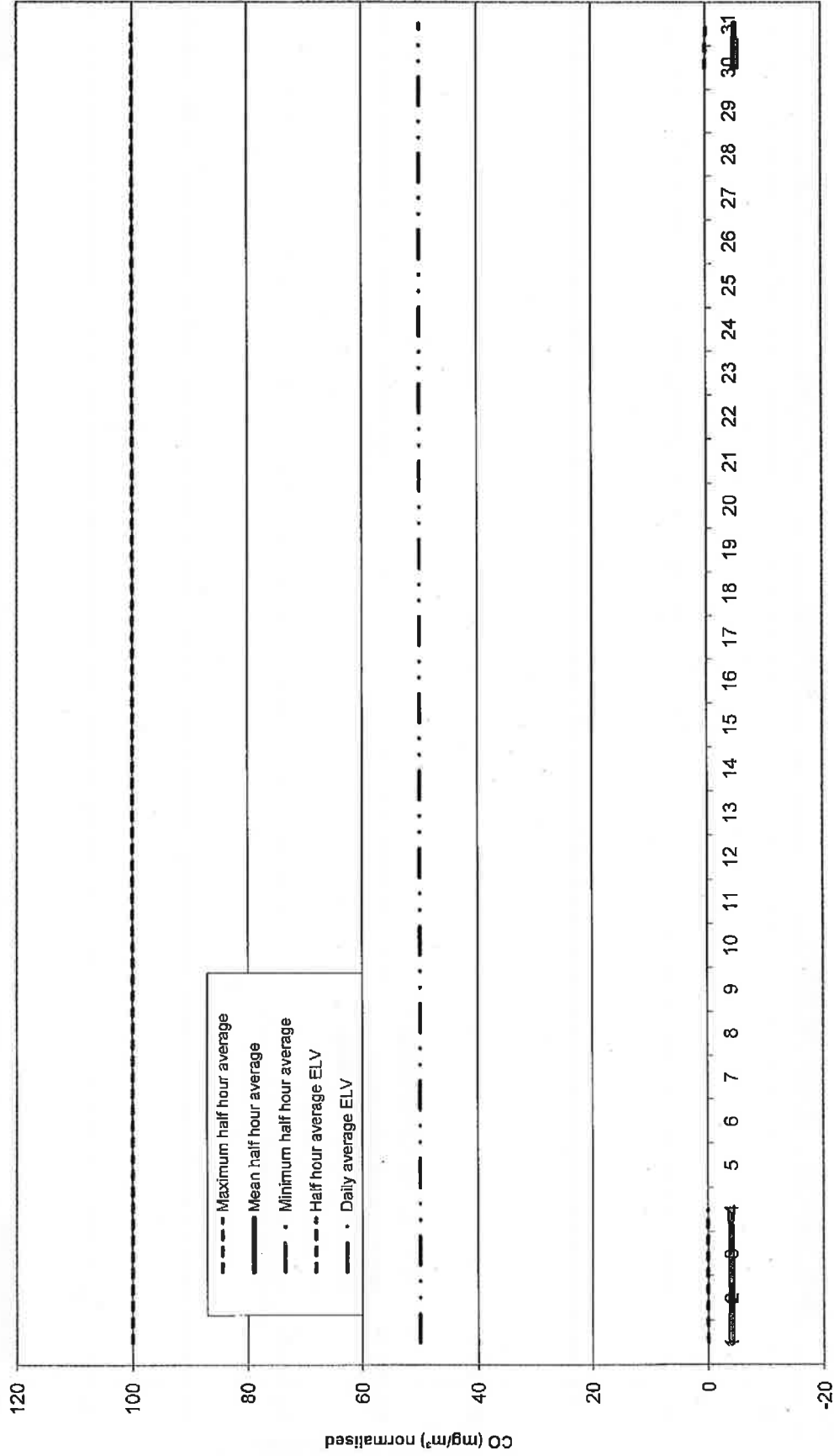
Date of Issue: 21/12/2006

Related Document: BU2357/AP3634 A6

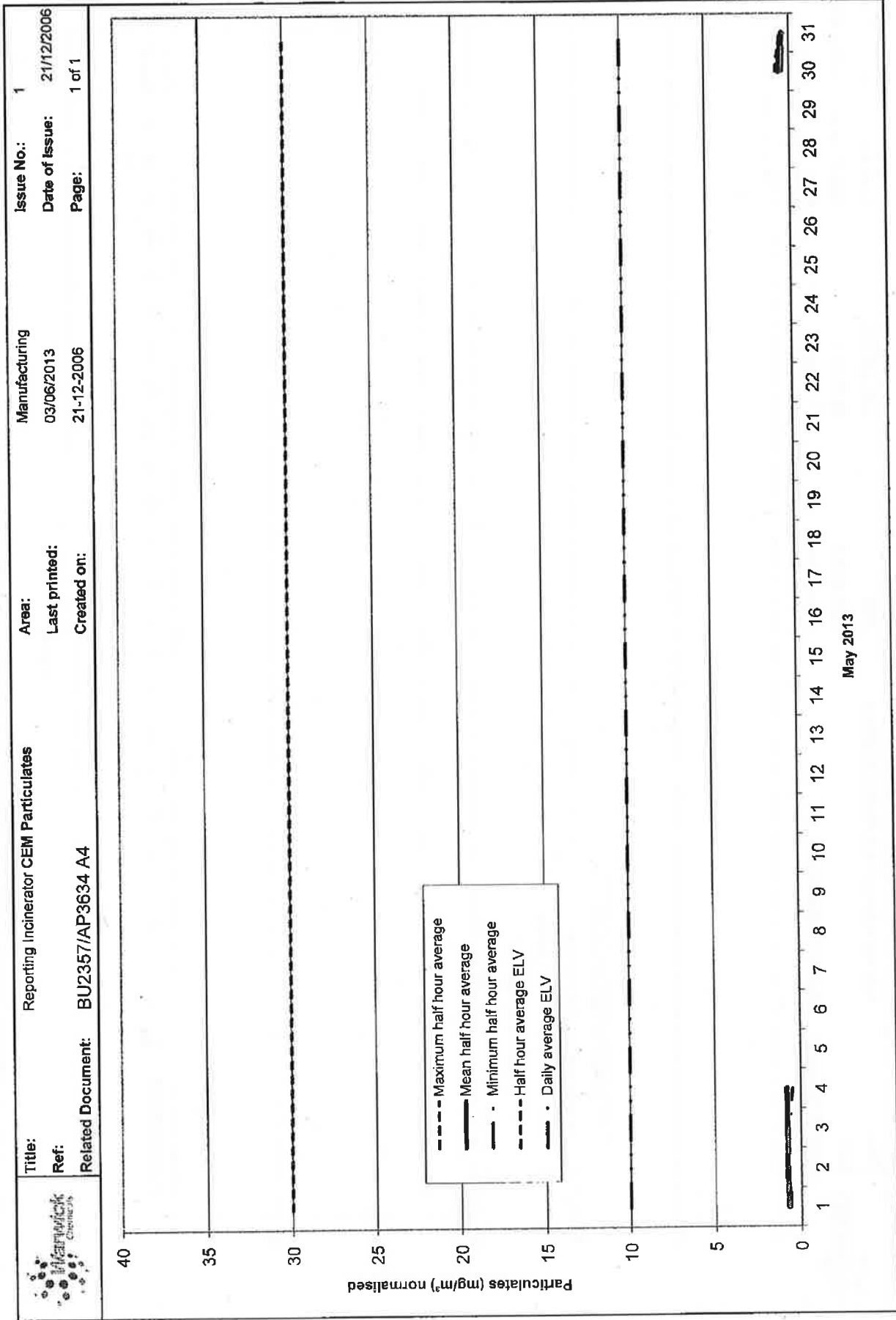
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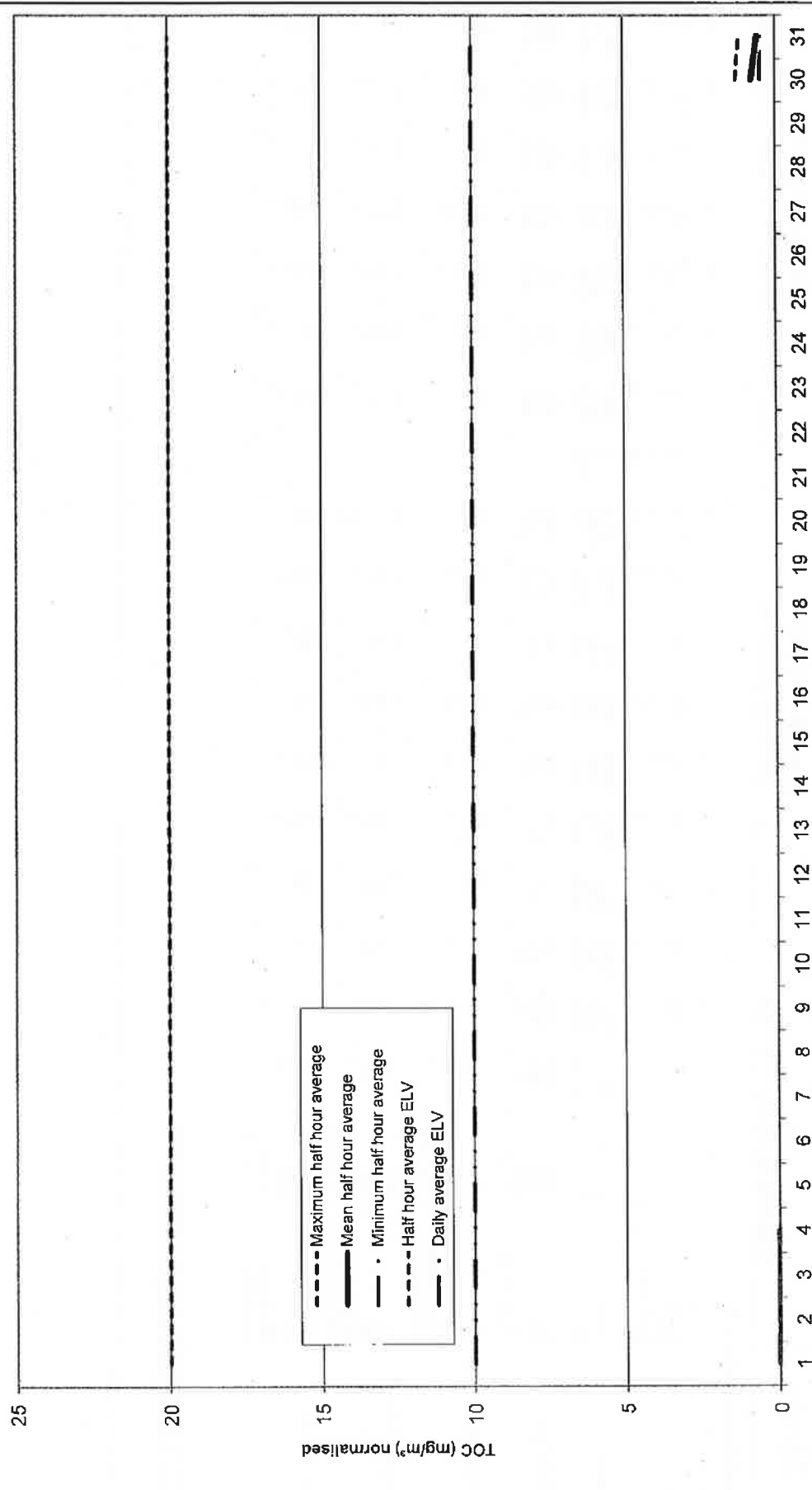
21-12-2006

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May 2013





Incinerator Summary Report - June 2013

Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Running time	24	22.5	23	21	23	20	17.5	18.5	24	8	0	5	15	14	20.5	24	20.5	24
Gas	0	1.5	1.5	4.5	1	4.5	8	7.5	0	2	0	18	13	12.5	11	0	4	0
Residue & gas	0	0	0.5	1.5	0	0.5	1.5	2	0	0	0	1	4	3.5	7.5	0	0.5	0
Idle	0	0	0	0	0	0	0	0	0	14	24	2	0	1	0	0	0	0
Total flow	10800.5	10185.2	10246.5	8833.7	10288.5	8752.8	7440.8	7771.3	10800.2	3571.2	0	2008.6	5235	5095.2	7057.2	10800.3	9055.3	11283.3
Gas	0	223.7	199.7	686.2	174	760.8	1207	1116.8	0	285.2	0	2902.7	1915.5	1883.7	1244	0	594.7	0
Air	149763	149885	151733	148164	146840	142437	143878	143382	147349	167420	22885	176051	132544	131492	135732	146803	146205	155015
Min	249.7	215.7	177	41.7	180	55.7	55	67.7	221	230.7	206.3	387.2	56.3	98.7	43.7	255.7	120.3	282.3
mg/m3	322.8	349.4	329.5	318.2	287.2	263	228	285.8	296.6	262	387.2	685.3	241	342.2	288.9	371.9	336.7	346.2
Max	422	655	703.7	574	698	574.3	547.7	774.3	386.3	287.3	N	885.3	533.3	1083.7	570.7	488.3	843.7	418.3
Exceeds daily ELV ?	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
CO (normalised)	Min	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5	-5.4	-5.5	-5.5	-5.5	-5.3	-5.5	-5.5	-5.5	-5.5
mg/m3	Ave	-5.3	-5.2	-4.8	-5.1	-5	-4.8	-4.7	-4.9	-4.8	-4.8	-4.8	-3.7	-3.4	-3.6	-3.6	-4.8	-5.1
Max	0	0	0	1.2	0	0.2	0.2	0.7	0	0	0	0	1.4	0.8	2.1	0	1.7	0
30m ELV exceedances	mg/m3	0	0	0	0	0	0	0	0	0	N	0	0	0	0	0	0	0
Exceeds daily ELV ?	[50 mg/m3]	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Particulates (normalised)	Min	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	2.8	0.6	0.6	0.2	0.4	0.3	0.9	0.4	0.9
mg/m3	Ave	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.9	3.1	0.7	0.7	0.5	0.5	0.7	1	1.1	1
Max	0.4	0.5	0.8	0.7	0.7	0.7	0.8	0.8	3.4	3.4	0.7	0.7	0.7	0.7	0.9	1.1	1.2	1.1
30m ELV exceedances	mg/m3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exceeds daily ELV ?	[10 mg/m3]	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
VOC (normalised)	Min	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0	0	0	0.5
mg/m3	Ave	0.5	0.5	0.5	0.6	0.5	0.6	0.6	0.6	0.5	0.7	0.7	0.8	0.8	0.6	0	0.2	0.5
Max	0.6	1	1.1	1	1.1	0.8	1.1	1.1	0.5	0.5	1.1	1.1	1.1	1.3	1.7	0	1	0.5
30m ELV exceedances	mg/m3	0	0	0	0	0	0	0	0	0	N	0	0	0	0	0	0	0
Exceeds daily ELV ?	[10 mg/m3]	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

NOTES
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Title: Reporting Incinerator CEM

Area: Manufacturing

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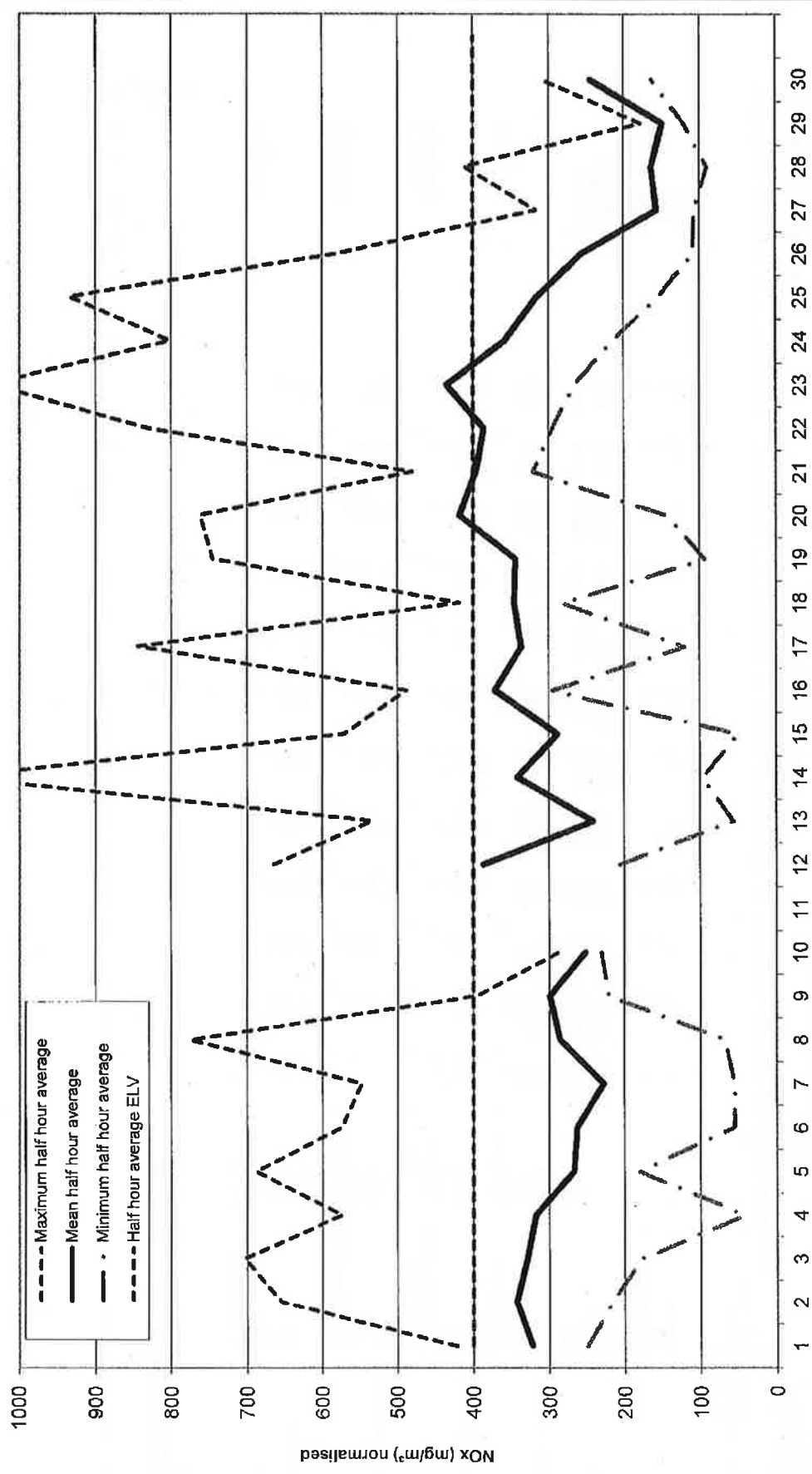
Ref:

Incinerator Summary Report - June 2013														
Day		19	20	21	22	23	24	25	26	27	28	29	30	TOTALS
Running time	Residue	18.5	18.5	24	23	18	20	20	18	24	23	24	24	579.5
	Gas	8	5.5	0	1.5	7	5	8	5	0	1.5	0	0	128.5
	Residue & gas	0.5	1	0	0.5	1	1	2	0.5	0	0.5	0	0	29.5
	Idle	0	0	0	0	0	0	0	0.5	0	0	0	0	41.5
Total flow	Residue	7049.8	8584.7	10800.5	10226.2	7719.3	8860.2	10740.2	11248.7	14388.3	13171.8	13200	12587	287.5 tonnes
	Gas	1352.2	800	0	204	1034.8	730.3	824.8	714	0	202.7	0	0	18080 m3
	Air	141775	141902	151071	143140	139538	137715	164237	170717	174308	166570	165445	163784	4418490 m3
NOx (normalised)	Min	93.3	142.7	321.3	295.7	288.3	216	155	109	107	90.3	121.3	164	
	Ave	344.2	418.3	396.7	396.1	435.2	359	316.5	258	158.8	183.7	149.1	244.8	
	Max	746.7	762	480.7	831.3	1038	802	935.3	578	317	412	177.7	310.3	
	Exceeds daily ELV ?	Y	N	N	Y	N	N	N	N	N	N	N	N	2 exceedances
CO (normalised)	Min	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5	-5.4	-5.2	-5.5	
	Ave	-4.8	-5.1	-5.3	-5.3	-4.3	-4.3	-4.7	-5.2	-4.9	-4.9	-4.3	-5	
	Max	1.2	0	0	0	0.7	1	0.7	0	0	0	0	0	0 exceedances
	Exceeds daily ELV ?	N	N	N	N	N	N	N	N	N	N	N	N	0 exceedances
Particulates (normalised)	Min	0.8	0.4	0.4	0.4	0.3	0.3	0.3	0.8	0.8	0.8	0.4	0.6	
	Ave	1	0.6	0.6	0.5	0.4	0.5	0.7	1	1	0.8	0.5	0.6	
	Max	1.2	0.7	0.8	0.8	0.5	0.7	0.9	1.1	1.1	0.8	0.7	0.7	
	Exceeds daily ELV ?	N	N	N	N	N	N	N	N	N	N	N	N	0 exceedances
VOC (normalised)	Min	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5	
	Ave	0.6	0.6	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	
	Max	1.1	1.2	0.5	0.5	1.2	0.9	1	0.6	0.5	0.6	0.5	0.5	
	Exceeds daily ELV ?	N	N	N	N	N	N	N	N	N	N	N	N	0 exceedances

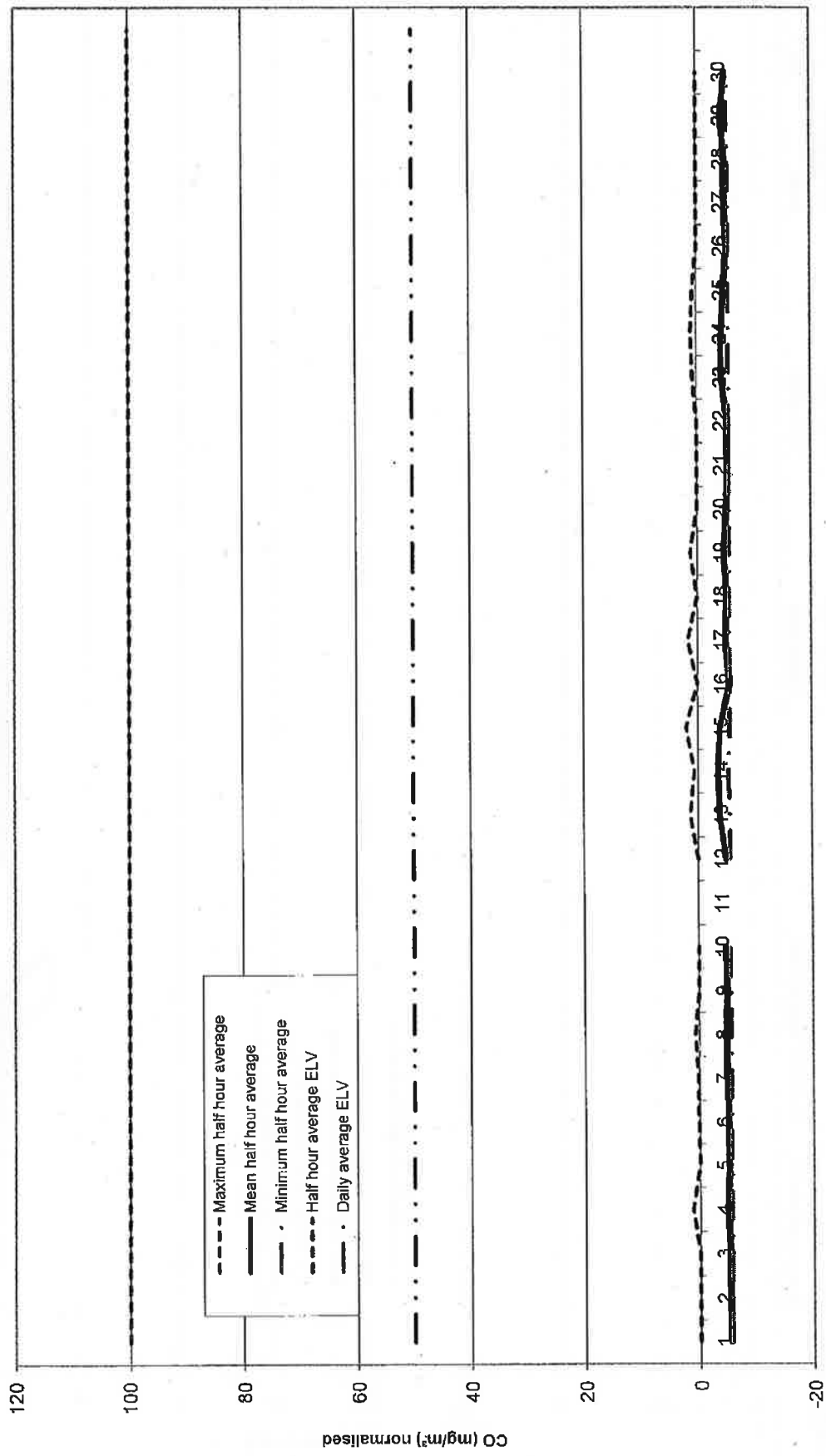
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June 2013





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Related Document:	BU2357/AP3634 A4	Created on:	21-12-2006	Page:	1 of 1

