





检测报告

报告编号: SHE19-52585

客户名称: 山东朋百环保装备有限公司 样品基质: 废气(3)

山东省东营市广饶县大王镇 报告日期: 客户地址: 2019/10/30

胜利路以东

项目名称:

备注:

1.结果适用于采样样品。

CNAS&CMA 授权签字人

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声明

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The test report is invalid if altered.

5. 本检测报告以中文为准,英文文本(如有)仅为译文,两者发生冲突时,应以中文文本为准。

The test report has been drafted in Chinese and translated into English (if applicable) for convenience only. In the event of discrepancy, the Chinese version shall prevail.

符号表/Legend

NA 样品未测试该参数/The sample was not analysed for this analyte

- ↑ 提高检出限/Detection limit raised
- ↓ 降低检出限/Detection limit lowered

ND 未检出/Not Detected

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测试方法一览表

样品编号	样品基体	检测参数	检测方法
SHE19-52585-01~03	废气	烟气参数	GB/T 16157-1996
SHE19-11585-01~03	废气	二噁英类化合物	HJ 77.2-2008

测试设备一览表

序号	设备名称	出厂编号	设备型号	
1	PH/ORP/Cond/DO测试仪	17041013	SX751	
2	二噁英采样器(烟道)	X1A005B6	AutoISOKINET I CAMPLER-APIS	
3	高分辨气相色谱-高分辨质 谱联用仪(HRGC/HRMS)	P882	AutoSpec Premier	

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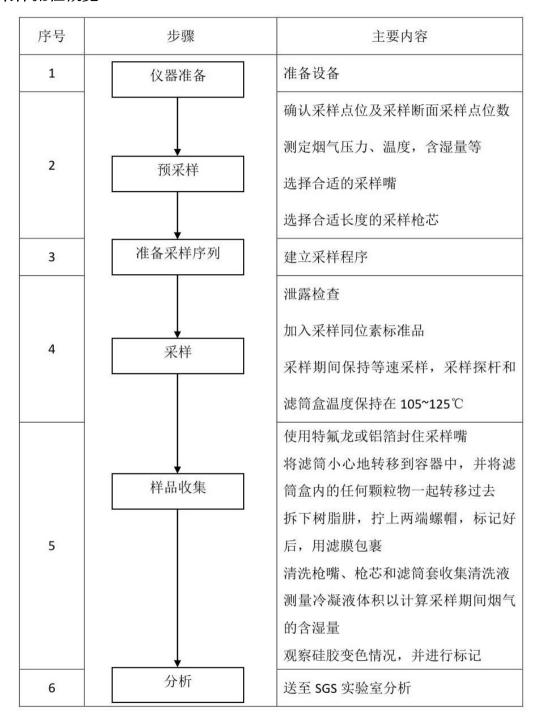
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废气采样流程概览



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废气测试流程概览

序号	步骤	主要内容
1	取样	添加提取同位素标准品
2	萃取	XAD-2 树脂干燥 洗液过滤,干燥过滤好的石英滤膜 滤筒酸化、清洗、干燥 洗液、冷凝水等合并液液萃取 将滤筒、树脂与石英滤膜一起索提 合并液液萃取液和索提液浓缩并进行 溶剂转换
3	净化	加入净化同位素标准品 浓硫酸净化 组合柱净化 收集样品
4	HRGC-HRMS 分析	浓缩样品 加入进样同位素标准品 上机分析
5	数据报告	图谱解析 数据分析 出具报告

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二噁英类化合物测试结果						
样品编号		SHE19-52585-01	SHE19-52585-02	SHE19-52585-03		
采样日	采样日期		2019/10/18	2019/10/18		
采样时	间	12:39-14:39	15:18-17:18	17:33-19:33		
受检单	位	临沂市新大环保科技有限公司				
采样地	址	临沂	f市蒙阴县垛庄镇工 <u></u>	业园		
采样点	采样点位		烟气净化设备检测 口	烟气净化设备检测 口		
测试日	测试日期		2019/10/29	2019/10/29		
项目	单位	烟道气	烟道气	烟道气		
大气压	kPa	100.7	100.7	100.8		
烟温	$^{\circ}\! \mathbb{C}$	24.1	24.1	20.2		
烟气流速	m/s	7.4	8.9	8.8		
测态气量	×10 ³ m ³ /h	5.24	6.25	6.22		
标干气量	×10 ³ Nm ³ /h	5.14	6.14	6.12		
含湿量	%	1.9	1.7	1.7		
烟道截面积	m^2	0.20	0.20	0.20		
排气筒高度	m	15	15	15		
标干体积	Nm ³	1.5	1.8	1.7		
二噁英量	ng I-TEQ	0.029	0.0023	0.0027		
实测浓度	ng I-TEQ/Nm ³	0.020	0.0013	0.0016		

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二噁英类化合物测试结果								
样品编号	SHE19-52585-01			SHE19-52585-02				
采样日期		2019/	10/18			2019/10/18		
采样时间		12:39-	14:39			15:18-17:18		
采样点位		烟气净化设	各检测口			烟气净化设备检测口		
测试日期		2019/	10/29			2019/10/29		
分析指标	检出限 (纳克)	测定值 (纳克)	I-TEF ¹⁾	I-TEQ ²⁾ (纳克)	检出限 (纳克)	测定值 (纳克)	I-TEF ¹⁾	I-TEQ ²⁾ (纳克)
PCDDs & PCDFs								
2,3,7,8-TCDF	0.003	0.0049	0.1	0.00049	0.002	< 0.0020	0.1	0.00010
1,2,3,7,8-PeCDF	0.003	0.012	0.05	0.00060	0.001	< 0.0014	0.05	0.000035
2,3,4,7,8-PeCDF	0.003	0.015	0.5	0.0073	0.001	< 0.0014	0.5	0.00034
1,2,3,4,7,8-HxCDF	0.001	0.022	0.1	0.0022	0.001	< 0.0014	0.1	0.000070
1,2,3,6,7,8-HxCDF	0.001	0.025	0.1	0.0025	0.001	0.0017	0.1	0.00017
2,3,4,6,7,8-HxCDF	0.001	0.016	0.1	0.0016	0.001	< 0.0014	0.1	0.000071
1,2,3,7,8,9-HxCDF	0.002	< 0.0016	0.1	0.000079	0.002	< 0.0016	0.1	0.000080
1,2,3,4,6,7,8-HpCDF	0.0009	0.075	0.01	0.00075	0.0006	0.0032	0.01	0.000032
1,2,3,4,7,8,9-HpCDF	0.001	0.010	0.01	0.00010	0.0007	< 0.00069	0.01	0.0000035
OCDF	0.002	0.029	0.001	0.000029	0.001	0.0093	0.001	0.0000090
2,3,7,8-TCDD	0.002	0.0044	1	0.0044	0.002	< 0.0016	1	0.00082
1,2,3,7,8-PeCDD	0.002	0.012	0.5	0.0059	0.001	< 0.0014	0.5	0.00035
1,2,3,4,7,8-HxCDD	0.001	0.0080	0.1	0.00080	0.001	< 0.0012	0.1	0.000059
1,2,3,6,7,8-HxCDD	0.001	0.0093	0.1	0.00093	0.001	< 0.0012	0.1	0.000059
1,2,3,7,8,9-HxCDD	0.001	0.011	0.1	0.0011	0.001	< 0.0012	0.1	0.000059
1,2,3,4,6,7,8-HpCDD	0.002	0.055	0.01	0.00055	0.001	0.0042	0.01	0.000042
OCDD	0.002	0.093	0.001	0.000093	0.001	0.031	0.001	0.000031
合计				0.029				0.0023

备注:

1):I-TEF:毒性当量因子。

2):毒性当量浓度I-TEQ:测定值与该化合物的毒性当量因子的乘积,对低于测定检出限的测定值,使用1/2的检出限计算毒性当量。

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二噁英类化合物测试结果					
样品编号	SHE19-52585-03				
采样日期		2019/	10/18		
采样时间		17:33-	19:33		
采样点位		烟气净化设	と 备检测口		
测试日期		2019/	10/29		
分析指标	检出限 测定值 (纳克) I-TEQ ²⁾ (纳克) (纳克)				
PCDDs & PCDFs					
2,3,7,8-TCDF	0.002	< 0.0022	0.1	0.00011	
1,2,3,7,8-PeCDF	0.002	< 0.0016	0.05	0.000040	
2,3,4,7,8-PeCDF	0.002	< 0.0016	0.5	0.00040	
1,2,3,4,7,8-HxCDF	0.001	< 0.0013	0.1	0.000063	
1,2,3,6,7,8-HxCDF	0.001	0.0017	0.1	0.00017	
2,3,4,6,7,8-HxCDF	0.001	< 0.0013	0.1	0.000064	
1,2,3,7,8,9-HxCDF	0.002	< 0.0015	0.1	0.000073	
1,2,3,4,6,7,8-HpCDF	0.0006	0.0048	0.01	0.000048	
1,2,3,4,7,8,9-HpCDF	0.0007	0.00072	0.01	0.0000072	
OCDF	0.002	0.0069	0.001	0.0000069	
2,3,7,8-TCDD	0.002	< 0.0019	1	0.00094	
1,2,3,7,8-PeCDD	0.002	< 0.0019	0.5	0.00047	
1,2,3,4,7,8-HxCDD	0.002	< 0.0015	0.1	0.000074	
1,2,3,6,7,8-HxCDD	0.002	< 0.0015	0.1	0.000074	
1,2,3,7,8,9-HxCDD	0.002	< 0.0015	0.1	0.000075	
1,2,3,4,6,7,8-HpCDD	0.001 0.0051 0.01 0.000051			0.000051	
OCDD	0.001 0.019 0.001 0.000019				
合计	0.0027				

备注:

1):I-TEF:毒性当量因子。

2):毒性当量浓度I-TEQ:测定值与该化合物的毒性当量因子的乘积,对低于测定检出限的测定值,使用1/2的检出限计算毒性当量。





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二噁英类化合物质控报告						
样品编号	SHE19-52585-01	SHE19-52585-02	SHE19-52585-03			
采样日期	2019/10/18	2019/10/18	2019/10/18			
采样时间	12:39-14:39	15:18-17:18	17:33-19:33	同收率控制要		
采样点位	烟气净化设备检测口	烟气净化设备检测口	烟气净化设备检测口	求(%) ³⁾		
测试日期	2019/10/29	2019/10/29	2019/10/29			
分析指标	烟道气	烟道气	烟道气			
采样内标回收率(%)						
³⁷ Cl-2,3,7,8-TCDD	83	85	86	70~130		
¹³ C-2,3,4,7,8-PeCDF	109	113	116	70~130		
¹³ C-1,2,3,4,7,8-HxCDF	106	106	106	70~130		
¹³ C-1,2,3,4,7,8,9-HpCDF	93	97	99	70~130		
¹³ C-1,2,3,4,7,8-HxCDD	106	106	104	70~130		
提取内标回收率(%)						
¹³ C-2,3,7,8-TCDF	49	50	49	24~169		
¹³ C-1,2,3,7,8-PeCDF	61	61	59	24~185		
¹³ C-1,2,3,6,7,8-HxCDF	69	68	65	28~130		
¹³ C-1,2,3,4,6,7,8-HpCDF	70	75	77	28~143		
¹³ C-2,3,7,8-TCDD	70	68	69	25~164		
¹³ C-1,2,3,7,8-PeCDD	78	81	79	25~181		
¹³ C-1,2,3,6,7,8-HxCDD	81	81	79	28~130		
¹³ C-1,2,3,4,6,7,8-HpCDD	77	82	85	23~140		
¹³ C-OCDD	72	84	85	17~157		
净化内标回收率(%)						
¹³ C-1,2,3,7,8,9-HxCDF	73	75	69	28~130		

备注:

3):回收率测试要求按HJ77.2-2008要求。

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