

表五 灰渣採樣分析結果報告表
(Table 5 Physical and chemical data of ash)

採樣日期：106.05.03(底渣)/ 106.05.03(飛灰、反應生成物)			天氣(weather)：晴天			
地點(site)：樹林垃圾焚化廠 (底渣)/ 樹林飛灰固化廠(飛灰、反應生成物)						
項目(item)			法規值 (regulation standard)	底渣 (bottom ash)	飛灰 (fly ash)	反應生成物 (reacted ash)
樣品編號			—	IEE-B-BA-10605	IEE-B-FA-10605	IEE-B-RA-10605
單位容積重 (bulk density) (kg／m³)			—	980	927	888
pH值 (pH value) (—)			—	9.4	10.6	11.3
水份 (moisture) (%)			—	26.71	1.82	1.14
chemical composition 化學成份	氧化矽，SiO ₂ (wt%)		—	28.49	26.61	23.14
	氧化鐵，Fe ₂ O ₃ (wt%)		—	7.14	6.14	7.59
	氧化鋁，Al ₂ O ₃ (wt%)		—	3.65	7.39	8.44
	氧化鈣，CaO (wt%)		—	18.58	25.17	30.11
	氯，Cl (wt%)		—	3.12	6.22	9.13
	硫酸根，SO ₄ ²⁻ (wt%)		—	0.33	0.81	1.39
	heavy metals 重金屬	鉛，Pb (mg/kg)	—	1,441	1,811	3,813
		鎘，Cd (mg/kg)	—	48.94	91.26	179.24
		汞，Hg (mg/kg)	—	1.277	1.517	2.591
		鎳，Ni (mg/kg)	—	27.3	32.5	48.3
		鋅，Zn (mg/kg)	—	3,188	4,111	5,569
		銅，Cu (mg/kg)	—	2,443	793	861
鉻，Cr (mg/kg)		—	161.5	259.1	136.3	
固定碳 (fixed carbon) (wt%)			—	3.31	1.43	0.67
灼燒減量 (ignition loss) (wt%)			5.0 (合約保證值)	2.19	---	---
金屬物理組成百分比 (wt%) (weight percentage of metals)			—	2.3	---	---
Toxicity Characteristics Leaching Procedure 毒性溶出試驗	總汞，Hg (mg/L)		0.2	0.0011	0.0153	0.0372
	總鉛，Pb (mg/L)		5.0	1.63	13.15	33.63
	總鎘，Cd (mg/L)		1.0	0.147	0.322	0.246
	總鉻，Cr (mg/L)		5.0	0.39	0.64	0.63
	總砷，As (mg/L)		5.0	ND(MDL=0.0067)	0.212	0.248
	六價鉻，Cr ⁶⁺ (mg/L)		2.5	0.16	0.14	0.41
	總銅，Cu (mg/L)		15	2.73	1.13	1.76
	總硒，Se (mg/L)		1.0	ND(MDL=0.0054)	0.111	0.817
	總鋇，Ba (mg/L)		100	1.75	1.63	0.65
	總鋅，Zn (mg/L)		—	3.61	3.73	4.52

註：飛灰及反應生成物為樹林固化廠貯槽下方輸送機內收集之飛灰(原灰)。

The fly ash and the reacted ash were sampled from the conveyor under the storage tank in the Shulin solidification plant.

化學成份分析係以不含物理性金屬組成(大顆粒料)之灰渣為樣品,並以濕基計。

The chemical composition of ash was calculated on wet basis excluded metal content.