

**Block I**      **General details**

**1**      **Location of the PCB disposal facility:**

Name of Facility: **SHANKS**  
City: **PONTYPOOL**      Country: **UK**  
*(Provide address information in Block IV)*

**2**      **Licence / authorization:**

Is this facility licensed or authorized to handle PCBs?  Yes  No  
If "Yes":  
(i) Nature of license / authorization: **UK ENVIRONMENT AGENCY**      **AG 8047**  
(ii) Please submit the licensing history *(please attach to this questionnaire)*  
Issuing authority *(name)*:  
 National  Local or  Independent

**3**      **Please provide information on storage at the facility including:**

Capacity for the various PCB waste and equipment types:  
  
Method:  
  
Holding time:

**4**      **Worker protection** *(Please summarize protective measures applied during treatment of PCB wastes)*

**NITRILE GLOVES**  
**SAFETY GLASSES**  
**TYVEK SUIT**  
**SAFETY SHOES**

Does the facility have an accident book?  Yes  No  
Most frequent cause(s) of incidents involving PCBs:  
**SMALL SPILLS - REMEDIATED IMMEDIATELY**

5

**Opinion box - PCB Management issues** *(Please describe briefly)*

What are your major concerns?

Can you identify research and development needs in PCB management that would be beneficial for your region and waste managers worldwide?

**Block II**

**Types of PCB wastes**

**Part A: Treatment of PCB containing equipment/material**

**Part A1: Metallic Parts**

**A1.1**

**Types of metallic PCB equipment/material treated:**

**Limitation on waste accepted**  
*(please specify, if appropriate)*

**Concentration**

*(specify the unit)*

unit:

**min**

**max**

**Quantity**

*(specify the unit)*

unit:

Equipment containing 100 % PCB

Equipment containing mineral oil contaminated by PCB

Others:

*Please specify any other limitation on waste accepted:*

**A1.2**

**Presentation of metallic equipment/material**

In what form must the metallic PCB equipment/material be presented:

Drums

Other packaging:

Other constraints:

A1.3

**Treatment of metallic PCB equipment/material**

Immediate destruction of metallic equipment/material containing PCB? Yes  No

If 'Yes', please specify the applied technology in Part III

Extraction of PCB? Yes  No

If 'Yes':

- please specify the applied technology in Part III
- Is the decontaminated metallic equipment/material subjected to reuse/recycling? Yes  No

If 'Yes', please specify in **Block II Part C** (Reuse and recycling)

**Part A: Treatment of PCB containing equipment/material**

**Part A2: Non-metallic Parts**

A2.1	Types of non-metallic PCB equipment/material treated:	Limitation on waste accepted (please specify, if appropriate)	
		Concentration (specify the unit) unit: min   max	Quantity (specify the unit) unit:
	<input checked="" type="checkbox"/> PCB-containing materials (clothes, cables, etc.)		500, PPM
	<input type="checkbox"/> PCB-contaminated residues, sludges		
	<input type="checkbox"/> PCB-contaminated soils and sediments		
	<input type="checkbox"/> Packaged / drummed waste		
	<input type="checkbox"/> Other:		
Please specify any other limitation on waste accepted:			
A2.2	<b>Presentation of non-metallic equipment/material</b> In what form must the non-metallic PCB equipment/material be presented: <input checked="" type="checkbox"/> Drums <input checked="" type="checkbox"/> Other packaging: BIG BAGS 'FIBC' <input type="checkbox"/> Other constraints:		

A2.3

**Treatment of non-metallic PCB equipment/material**

Immediate destruction of non-metallic equipment/material containing PCB? Yes  No

If 'Yes', please specify the applied technology in Part III

Extraction of PCB? Yes  No

If 'Yes':

- please specify the applied technology in Part III
- Is the decontaminated non-metallic equipment/material subjected to reuse/recycling? Yes  No

If 'Yes', please specify in **Block II Part C** (Reuse and Recycling)

Part B: Treatment of PCB oils and PCB waste oils

B1	Types of PCB oils and PCB waste oils treated:	Limitation on waste accepted (please specify, if appropriate)	
		Concentration (specify the unit) unit: min   max	Quantity (specify the unit) unit:
	<input type="checkbox"/> 100 % PCB oils		500 PPM
	<input type="checkbox"/> Mineral oils contaminated by PCB		500 PPM
	<input type="checkbox"/> Waste oils contaminated by PCB		500 PPM
	<input type="checkbox"/> Other:		
<p>Please specify any other limitation on waste accepted:  <b>HAVE APPLIED FOR CHANGE OF LICENSE/AUTHORISATION            TO ACCEPT 100% PCB OILS</b></p>			
B2	<p><b>Presentation of PCB oil and PCB waste oil</b></p> <p>In what form must the PCB oil and PCB waste oil be presented:</p> <p><input checked="" type="checkbox"/> Drums</p> <p><input checked="" type="checkbox"/> Other packaging: <b>BULK</b></p> <p><input type="checkbox"/> Other constraints:</p>		
B3	<p><b>Treatment of PCB oils and PCB waste oils</b></p> <p>Please specify the applied technology for the destruction of PCB oils and PCB waste oils in Part III</p>		

**Part C: Reuse & Recycling of decontaminated PCB equipment/material**

<p><b>C1</b></p>	<p><b>Types decontaminated PCB equipment/material treated:</b></p> <p><input type="checkbox"/> Transformers</p> <p><input type="checkbox"/> Capacitors</p> <p><input type="checkbox"/> Materials (clothes, cables, etc.)</p> <p><input type="checkbox"/> Residues, sludges</p> <p><input type="checkbox"/> Soils and sediments</p> <p><input type="checkbox"/> Other:</p>	<p><b>Limitation on waste accepted</b> <i>(please specify, if appropriate)</i></p> <p><b>Quantity</b> <i>(specify the unit)</i></p> <p>unit:</p>
<p><i>Please specify any other limitation on waste accepted:</i></p>		
<p><b>C2</b></p>	<p><b>Presentation of decontaminated PCB equipment/material</b></p> <p>In what form must the decontaminated PCB equipment/material be presented:</p> <p><input type="checkbox"/> Drums</p> <p><input type="checkbox"/> Other packaging:</p> <p><input type="checkbox"/> Other constraints:</p>	

C3

**Treatment of decontaminated PCB equipment/material**

Reuse and Recycling of decontaminated PCB equipment/material? Yes  No

If 'Yes', please specify the applied technology in Part III

Is the decontaminated PCB equipment/material disposed of? Yes  No

If 'Yes', please specify:

Transport to the disposal site? Yes  No

If 'Yes':

International transport

National transport

Location of disposal site:

Please provide a short description of disposal site:

**Block III Detailed information on applied technologies**

1	The following description refers to Block II, Part:	Type of PCB waste or decontaminated equipment/material:
	<input type="checkbox"/> A1 (Treatment of metallic PCB equipment/material)	
	<input checked="" type="checkbox"/> A2 (Treatment of non-metallic PCB equipment/material)	
	<input checked="" type="checkbox"/> B (Treatment of PCB oil and PCB waste oil)	
	<input type="checkbox"/> C (Reuse and recycling of decontaminated PCB equipment/material)	
2	<p><b>Applied technologies</b> (Please specify the technology used for disposal):</p> <p><input type="checkbox"/> Pyrolysis / gasifiers</p> <p><input type="checkbox"/> Gas Phase Chemical Reduction (GPCR)</p> <p><input type="checkbox"/> Base Catalysed Decomposition (BCD)</p> <p><input type="checkbox"/> Sodium Reduction</p> <p><input type="checkbox"/> Super-Critical Water Oxidation (SCWO)</p> <p><input type="checkbox"/> Plasma Arc</p> <p><input type="checkbox"/> Molten Salt Oxidation</p> <p><input type="checkbox"/> Solvated Electron Technology</p> <p><input type="checkbox"/> Retrofilling</p> <p><input checked="" type="checkbox"/> Other:</p> <p>Type of technology (1-sentence description):  <b>HIGH TEMPERATURE INCINERATION</b></p> <p>Description of the technology please provide additional information as appropriate (summarize here and, if necessary, attach documentation)  <b>SEE ATTACHED DOCUMENTS.</b></p> <p>Commissioned? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No      Year: <b>1970</b></p> <p>Can the technology be used in a mobile facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	
3	<p><b>State of development</b></p> <p>Does the technology exist as an industrial unit? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If "No", please indicate when it will become operational:</p> <p>If "Yes", please indicate how many units exist: <b>1</b></p> <p>In what countries: <b>UK</b></p>	

4

**Pretreatment:**

Does the technology require any pretreatment procedures?  Yes  No

If "Yes", please specify required pretreatment procedures:

- Thermal Desorption  
 Dilution  
 Low Temperature Rinsing  
 Electro-osmosis  
 Draining/Solvent washing  
 Dismantling/Shredding  
 Other:

5

**Byproducts**

What byproducts does the technology produce? *(please specify below)*

Byproduct	Kind	Amount
Liquids:		L per tonnes of waste treated
Solids:		kg per tonnes of waste treated
Air:		m <sup>3</sup> per tonnes of waste treated

Does the technology allow all byproducts to be monitored for POPs\*/PTS\*\* before release?  Yes  No

If POPs\*/PTS\*\* are discovered, can the byproducts be returned to the process for further treatment?  Yes  No

**YES - SOLID**

Are any of the byproducts classified as other sorts of hazardous wastes?  Yes  No

If "Yes" please specify:

What volumes of such byproducts are generated by handling a unit volume of PCB wastes:

Can third party monitoring data be provided?  Yes  No

If "Yes", please attach to this questionnaire.

\* POPs: Persistent Organic Pollutants  
 \*\* PTS: Persistent Toxic Substances

How are byproducts disposed of? *(please describe briefly)*

6	<p><b>Efficiency (please specify, if appropriate)</b></p> <p>Destruction efficiencies (DEs): <b>&gt;99.9999%</b></p>
7	<p><b>Monitoring &amp; Control of releases</b></p> <p>What technologies are used to monitor releases:</p> <p>Air: ?</p> <p>Effluents: } <b>GAS CHROMATOGRAPHY</b></p> <p>Solids: }</p> <p>Are all releases monitored for POPs*/PTS** before release? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  <b>NOT ON A CONTINUOUS BASIS</b></p> <p>If POPs*/PTS** are discovered, can the releases be returned to the process for further treatment? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No  <b>YES - SOLID + EFFLUENTS NO - AIR</b></p> <p>Are any of the releases classified as hazardous wastes? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If "Yes" please specify:</p> <p>What technologies are used/ required to monitor and treat any such releases prior to release:</p> <p>What volumes of such releases are generated by handling a unit volume of PCB wastes:</p> <p>Is third party monitoring data available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If "Yes", please attach to this questionnaire.</p> <p style="text-align: right;">* POPs: Persistent Organic Pollutants  ** PTS: Persistent Toxic Substances</p>
	<p>How are releases disposed of? (please describe briefly)</p> <p><b>SOLIDS - LANDFILL</b></p> <p><b>EFFLUENT - RIVER ESTVARY</b></p>

8

**Disposal costs**

What are the *approximate* costs for applying the technology per unit<sup>‡</sup>, **including** costs for all technical pretreatment steps and **excluding** all costs **not** related to the technical application of the technology (transport costs, costs for disposal of decontaminated transformers/capacitors/materials, etc.)?

Please specify type of treated/disposed PCB equipment/material/oil below:

	Costs per unit <sup>‡</sup>	Currency
a)		
b)		
c)		
d)		
e)		
f)		
g)		

<sup>‡</sup> Specify the unit for a) to g):

9

**Treatment capacities and scaling (tonnes per year for main waste & equipment types)**

Capacity of existing facilities: **35000 TONNES** units<sup>‡</sup> per year

Can the technology be adapted to higher or lower capacities? Yes  No

If "Yes":

- (i) What is the capacity of the smallest commercially viable facility: \_\_\_\_\_ units<sup>‡</sup> per year
- (ii) What is the capacity of the largest commercially viable facility: \_\_\_\_\_ units<sup>‡</sup> per year

Does the adaptation will cause additional costs?  Yes  No

If "Yes" specify the increase in costs for the adaptation (%) of the initial costs:

- (i) For smaller plants: \_\_\_\_\_ %
- For larger plants: \_\_\_\_\_ %

<sup>‡</sup> Please specify the unit:

## Block IV

## Facility: Address and Service Information

1

Facility Name: SHANKS  
Address: PONTYFELIN INDUSTRIAL ESTATE  
City/Town: NEW ROAD, PANTEG  
P.O. Box: PONTYPOOL, NP4 0SH  
District/State: TORFAEN  
Country: UK  
Telephone: +44 1495 756231  
Fax: +44 1495 757019  
Email: international.team@shanks.co.uk  
Web site: www.shanks.co.uk

Person completing form

Name: MIKE BOWEN  
Position: INTERNATIONAL SALES EXECUTIVE

Parent Company (if different): SHANKS GROUP PLC.

Address: ASTOR HOUSE  
City/Town: STATION ROAD  
P.O. Box: BOURNE END  
District/State: BUCKINGHAMSHIRE, SL8 5YP  
Country: UK  
Telephone: +44 1628 524523  
Fax: +44 1628 524114  
Email: info@shanks.co.uk

2	<p><b>Other Services offered by the company</b></p> <ul style="list-style-type: none"><li><input checked="" type="checkbox"/> Laboratory analysis / testing</li><li><input checked="" type="checkbox"/> PCB waste packaging for shipment</li><li><input checked="" type="checkbox"/> PCB classification / labeling</li><li><input checked="" type="checkbox"/> Clean-up of PCB contaminated sites</li><li><input checked="" type="checkbox"/> PCB wastes transport</li><li><input checked="" type="checkbox"/> Other PCB-related services: DISPOSAL ARRANGED</li></ul>
3	<p><b>Further information</b></p> <p>Identify any company information (brochures, notes etc...) provided separately and if you wish provide additional comments on your services in <b>not</b> more than 50 words:</p> <p>AS ATTACHED 3 DOCUMENTS.</p>

## **UNEP PCB PUBLICATION**

### **Block IV Section 3 – Further information**

Shanks, one of Europe's largest independent waste management companies, offers complete PCB waste solutions tailored to meet individual needs.

Through our Field Services Division, which holds specific expertise in completing PCB removal projects throughout the world, we seek to provide our customers with a solution for all their PCB testing, packaging, labeling, shipping and disposal requirements.