



THE ROYAL BOROUGH OF  
**KENSINGTON  
AND CHELSEA**

## **Permit with introductory note**

Environmental Permitting (England and Wales) Regulations 2007

Installation address

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AA Noble House  
5 Hogarth Place  
Earl's Court  
London  
SW5 0QT

Permit Reference: 06/012718/1

POLLUTION PREVENTION AND CONTROL ACT 1999  
ENVIRONMENTAL PERMITTING REGULATIONS 2007  
**ENVIRONMENTAL PERMIT**

To: Mrs Lalith Wijesignhe  
At: AA Noble House  
5 Hogarth Place  
Earl's Court  
London  
SW5 0QT

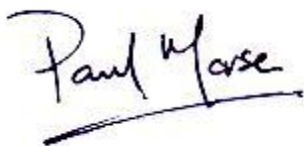
Operating a  
**dry cleaning installation (serial no. QC104036933)**  
at the "site address" of:

AA Noble House  
5 Hogarth Place  
Earl's Court  
London  
SW5 0QT

The Royal Borough of Kensington and Chelsea (the Regulator) in exercise of the powers conferred upon it by Regulation 13 of the Environmental Permitting (England and Wales) Regulations 2007 (S.I. 2007 No. 3538) ("the 2007 Regulations") hereby permits the operator to the extent authorised by and subject to the conditions of this Permit Reference 06/012718/1 and within the boundary as marked in red on the location plan in Appendix 1.

The conditions of this permit shall take effect from 15<sup>th</sup> August 2009 and supersedes and replaces all former authorisations/permits.

Signed:



Date: 17 February 2010

**Paul Morse**  
**Director of Environmental Health**

Authorised to sign on behalf of The Royal Borough of Kensington and Chelsea

## INTRODUCTORY NOTE

(This introductory note does not form part of the environmental permit, but it is for the guidance of those issued with the environmental permit). Further guidance can be found in the PPC General Guidance Manual at [www.defra.gov.uk/environment/ppc](http://www.defra.gov.uk/environment/ppc)

### Dealing with an Environmental Permit

The following Permit is issued under Regulation 13 of the Environmental Permitting (England and Wales) Regulations 2007 (S.I. 2007 No. 3538) ("the 2007 Regulations") to operate an installation carrying out one or more of the activities listed in Part 2 of Schedule 1 of those Regulations, to the extent authorised by the Permit.

The Permit includes conditions that have to be complied with. It should be noted that aspects of the operation of the installation which are not regulated by those conditions are subject to the condition implied by Regulation 35(a) Sch7, para 8(1) and/or Regulation 35(b) Sch8, para 7(1) of the 2007 Regulations, that the Operator must follow developments in best available techniques. This shall be used for preventing or, where that is not practical, reducing emissions from the installation. Techniques include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

### Offences

The operation of an installation subject to LA-IPPC or LAPPC without the benefit of an environmental permit is an offence under regulation 38(a) and failure to comply with a permit is an offence under regulation 38(b) of the 2007 Regulations. A person guilty of an offence under these regulations could be liable to (i) on summary conviction to a fine not exceeding £20,000 or imprisonment for a term not exceeding 6 months or to both<sup>1</sup>; or (ii) on conviction on indictment to a fine or imprisonment for a term not exceeding 5 years, or to both.

Note offences under regulation 38 with respect to all records including logbooks, monitoring results and annual solvent records note regulation 38(e) where it is an offence to make a statement which you know to be false or misleading in a material particular, or recklessly to make a statement which is false or misleading in a material particular. Under regulation 38(f) it is an offence to intentionally make a false entry in a record required to be kept under an environmental permit condition. Also it is an offence under regulation 38(g) with the intent to deceive (i) to forge or use a document issued or authorised to be issued or required for any purpose under an environmental permit condition, or (ii) to make or have in your possession a document so closely resembling such a document as to be likely to deceive.

### Appeals

Under regulation 31 and Schedule 6 of the 2007 Regulations operators have the right of appeal against the conditions attached to their environmental permit by a variation notice. The right to appeal does not apply in circumstances where the notice implements a direction of the Secretary of State/Welsh Ministers given under regulations 61 or 62 or a direction or when determining an appeal.

Appeals against a Variation Notice do not have the effect of suspending the operation of the Notice. Appeals do not have the effect of suspending environmental permit conditions, or any of the mentioned notices.

Notice of appeal against a Variation Notice must be given within two months of the date of the variation notification, which is the subject matter of the appeal. The Secretary of

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<sup>1</sup> In relation to an offence after commencement of section 154(1) of the Criminal Justice Act 2003, for £20,000 substitute £50,000, for 6 months substitute 12 months.

State/Welsh Ministers may in a particular case allow notice of appeal to be given after the expiry of this period, but would only do so in the most compelling circumstances.

### **How to appeal**

There are no forms or charges for appealing. However, for an appeal to be valid, appellants (the person/operator making the appeal) are legally required to provide (see paragraphs 2(1) and (2) of Schedule 6 of the 2007 Regulations):

- the appropriate authority written notice of the appeal
- a statement of the grounds of appeal;
- a copy of any relevant application;
- a copy of any relevant environmental permit;
- a copy of any relevant correspondence between the appellant and the regulator;
- a copy of any decision or notice which is the subject matter of the appeal; and
- a statement indicating whether the appellant wishes the appeal to be in the form of a hearing or dealt with by way of written representations.

Appellants should state whether any of the information enclosed with the appeal has been the subject of a successful application for confidentiality under regulation 48 of the 2007 Regulations, and provide relevant details – see below. Unless such information is provided all documents submitted will be open to inspection.

### **Where to send your appeal documents**

Appeals should be dispatched on the day they are dated, and addressed to:

The Planning Inspectorate Environment Team, Major and Specialist Casework Room 4/04 Kite Wing Temple Quay House 2 The Square Temple Quay Bristol BS1 6PN	
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If an appeal is made, the main parties will be kept informed about the next steps, and will also normally be provided with additional copies of each other's representations.

To withdraw an appeal – which may be done at any time - the appellant must notify the Planning Inspectorate in writing and copy the notification to the local authority who must in turn notify anyone with an interest in the appeal.

### **Costs**

The operator and local authority will normally be expected to pay their own expenses during an appeal. Where a hearing or inquiry is held as part of the appeal process, by virtue of paragraph 5(6) of Schedule 6, either the appellant or the authority can apply for costs. Applications for costs are normally heard towards the end of the proceedings and will only be allowed if the party claiming them can show that the other side behaved unreasonably and put them to unnecessary expense. There is no provision for costs to be awarded where appeals are dealt with by written representatives.

### **Confidentiality**

An operator may request certain information to remain confidential, i.e. not be placed on the public register. The operator must request the exclusion from the public register of confidential information at the time of supply of the information requested by this notice or any other notice. The operator should provide clear justification for each item wishing to be

kept from the register. The onus is on the operator to provide a clear justification for each item to be kept from the register. It will not simply be sufficient to say that the process is a trade secret.

The test of whether information is confidential for the purposes of being withheld from the public register is complex and is explained, together with the procedures, in chapter 8 of the PPC General Guidance Manual.

### **National security**

Information may be excluded from the public register on the grounds of National Security. If it is considered that the inclusion of information on a public register is contrary to the interests of national security, the operator may apply to the Secretary of State/Welsh Ministers, specifying the information and indicating the apparent nature of risk to national security. The operator must inform the local authority of such an application, who will not include the information on the public register until the Secretary of State/Welsh Ministers has decided the matter.

### **Variations to the permit**

This Permit may be varied in the future. If at any time the activity, or any aspect of the activity regulated by the following conditions changes such that the conditions no longer reflect the activity and require alteration, the Regulator should be contacted.

### **Surrender of the permit**

Where an Operator intends to cease the operation of an installation (in whole or in part) the operator must contact the regulator to obtain the relevant surrender form.

### **Transfer of the permit or part of the permit**

Before the Permit can be wholly or partially transferred to another person, a joint application to transfer the Permit has to be made by both the existing and proposed holders, in accordance with Regulation 21 of the 2007 Regulations. A transfer will be allowed unless the Authority considers that the proposed holder will not be the person who will have control over the operation of the installation or will not ensure compliance with the conditions of the transferred Permit.

### **Responsibility under workplace health and safety legislation**

This Permit is given in relation to the requirements of the 2007 Regulations. It must not be taken to replace any responsibilities you may have under Workplace Health and Safety legislation.

### **Royal Borough of Kensington and Chelsea Contact Details**

Environmental Quality and Public Health Team  
Directorate of Environmental Health  
Council Offices  
37 Pembroke Road  
London W8 6PW  
If telephoning please ask for Guy Denington

Tel: 0207 341 5295                      Fax:                      0207341 5645  
E-mail: [Guy.Denington@rbkc.gov.uk](mailto:Guy.Denington@rbkc.gov.uk)

Please quote the reference number 06/012718/1 in all correspondence

### **End of introductory note**

## CONDITIONS

### 1. Documents Comprising Part of the Permit

- 1.1. Secretary of States Guidance Note PG 6/46(04) for Dry Cleaning;
- 1.2. Appendix 1: Location Plan;
- 1.3. Appendix 2: Site plan
- 1.4. Appendix 3: Specimen inventory for recording solvent used and product cleaned; and
- 1.5. Appendix 4: Schedule of procedures, checks and maintenance requirements

### 2. The permitted Installation

- 2.1. The above named company is permitted to operate an installation for dry cleaning, meaning an industrial or commercial activity using volatile organic compounds to clean garments. Furnishings and similar consumer goods excluding the manual removal of stains and spots in the textile and clothing industry.
- 2.2. The activities authorised under Condition 2.1 shall not extend beyond the boundary of the site shown in red in Appendix 1.
- 2.3. New installations shall meet the full standards of the above-mentioned guidance note from the first day of operation. Existing installations shall meet these requirements from 31 October 2007.

### 3. Permitted equipment

- 3.1. The Operator is authorised to carry out the activities and/or associated activities in Condition 2.1 using equipment specified in Table 1.

EQUIPMENT	MAKE/MODEL	SERIAL NUMBER	LOAD CAPACITY	DATE OF INSTALLATION	DRY CLEANING SOLVENT
A	Bowe 140	QC104036933	12kg	July 1996	Perchloroethylene

Table 1

4. Operations must be carried out in such a manner that no more than 20 grams of solvent per kilogram of product cleaned and dried shall be emitted as measured and reported annually. The 20 grams includes all organic solvents used within the installation e.g. dry cleaning solvent, waterproofing solutions and spot cleaning solutions.
5. A weekly inventory of solvent usage, product cleaned and solvent waste sent for recovery or disposal shall be maintained and held on site for inspection by the regulator for at least 12 months. Note: The solvent management balance sheet for dry cleaning installations in Appendix 3 can be used to demonstrate compliance with conditions 4 and 5. (The Textile Services Association (TSA) and DEFRA have developed three Excel spreadsheets (known as Solv Calc) which provide a simple means for calculating solvent consumption for the purposes of PPC/Solvent Emissions Directive compliance. For information on how to obtain the spreadsheet go to the DERFA website [http://www.defra.gov.uk/environment/quality/pollution/ppc/localauth/pubs/guidance/notes/aqnotes/aq16\(05\).htm](http://www.defra.gov.uk/environment/quality/pollution/ppc/localauth/pubs/guidance/notes/aqnotes/aq16(05).htm) OR contact TSA, 7 Churchill Court 58 Station Road North Harrow, Middlesex HA2 7SA. Tel: 020 8863 7755 Fax: 020 8861 2115 Email: tsa@tsa-uk.org )
6. The operator shall implement the schedule of procedures, checks, and maintenance requirements to each dry cleaning machine as listed in Appendix 4.
7. The regulator shall be advised in writing 14 days prior to any proposed significant alteration to the operation, or modification of the installation which may have an effect on emissions of VOC from the installation, in particular changes to the matters listed in condition 6.

8. All operating staff must know where the operating manual for each dry cleaning machine can be found and have ready access to it.
9. All operating staff must be trained in the operation of each dry-cleaning machine and the control and use of dry cleaning solvents. The training received must be recorded.
10. The machine shall be installed and operated in accordance with supplier recommendations, to minimise the release of VOC to air, land, and water.
11. In the case of abnormal emissions, malfunction or breakdown leading to abnormal emissions the operator must:
  - 11.1. Investigate immediately and undertake corrective action; adjust the process or activity to minimise those emissions; and
  - 11.2. Adjust the process or activity to minimise those emissions; and
  - 11.3. Promptly record the events and actions taken.
  - 11.4. In this condition, abnormal emission will include any detectable solvent smell other than in the area of the dry cleaning machine.
12. In cases of non-compliance causing immediate danger to human health, operation of the activity must be suspended; and the regulator informed within 24 hours.
13. Dry cleaning machines shall be operated as full as the type of materials to be cleaned will allow. (E.g., Full loads for light non-delicates materials such as suits. Delicates and heavy materials, such as, wedding dresses and blankets may need to be cleaned in part loads).
14. Where cleaning solvents containing VOC are not received in bulk they shall be stored:
  - 14.1. In the containers they were supplied in with the lid securely fastened at all times other than when in use; and
  - 14.2. Within spillage collectors, of suitable impervious and corrosion-proof materials and capable of containing 110% of the largest container; where no spillage collector is fitted or required, away from any drains which may become contaminated as a result of spillage, and
  - 14.3. Away from sources of heat and bright light; and
  - 14.4. With access restricted to only appropriately trained staff.
  - 14.5. Note: from a health and safety point of view: a well-ventilated area should be used.
15. Where cleaning solvents containing VOC are not received in bulk, the lids of the containers shall only be removed when the container is next to the cleaning machine readily for filling. Cleaning solvents shall be obtained in containers of a size, which allows the entire container to be emptied into the machine at each topping up. Once emptied the lid of the container shall be replaced securely.
16. Spot cleaning with organic solvents or organic solvent borne preparations shall not be carried unless they are the only method of treating a particular stain on the material to be cleaned.
17. The dry cleaning machine-loading door shall be kept closed when not in use.
18. The dry cleaning machine loading door shall be closed before the start-up of the machine, and kept closed at all times through the drying and cleaning cycle.

- 18.1. All machines installed after 19 May 2005 shall have interlocks to prevent start-up of the machine until the loading door is closed and to prevent opening of the loading door until the machine cycle has finished and the cage has stopped rotating.
- 18.2. All machines installed after 19 May 2005 shall have interlocks to automatically shut down the machine under any of the following conditions: cooling water shortage, failure of the cooling ability of the still condenser, failure of the cooling ability of the refrigeration system or failure in the machine heating system resulting in the inability to dry the load.
19. The still, button trap and lint filter doors shall be closed before the start-up of the machine and kept closed at all times through the drying and cleaning cycle.
  - 19.1. All machines installed after 19 May 2005 shall have interlocks to automatically shut down the machine if the still, button trap and lint filter doors are not properly closed.
20. The still shall have a thermostatic control device or equivalent with which to set a maximum temperature, in accordance with manufacturers' recommendations for the solvent used.
21. The heat source shall automatically switch off at the end of the distillation process unless steam-fed.
22. All machines shall have a spillage tray with a volume greater than 110% of the volume of the largest single tank within the machine. This condition applies to new and most refurbished machines only.
23. All machines installed after 19 May 2005 shall have a secondary water separator to minimise potential solvent losses.
24. Before disposal, containers contaminated with solvent shall be stored with the lids securely fastened to minimise emissions from residues during storage before disposal, and labelled so that all that handle them are aware of their contents.
25. Solvent contaminated waste, for example still residues, shall be stored:
  - 25.1. In suitable sealed containers with the lid securely fastened at all times other than when in use; and
  - 25.2. On a suitable impervious floor; and
  - 25.3. Away from any drains which may become contaminated with residues as a result of spillage,
  - 25.4. Away from sources of heat and bright light; and
  - 25.5. With access restricted to only appropriately trained staff.
  - 25.6. Note: from a health and safety point of view: a well-ventilated area should be used.
26. Equipment to clean up spillages must be quickly accessible in all solvent handling and storage areas.
27. The operator shall maintain records incorporating details of all maintenance, testing, repair work carried out on each dry cleaning machine and the scales used to weigh the loads, along with details of training required under condition 6. The records shall be available within 7 days upon request by the regulator



28. Spares and consumables, in particular those subject to continual wear, shall be held on site, or shall be available at short notice from guaranteed suppliers, so that plant breakdowns can be rectified rapidly.

**New and Substantially Changed Installations Using PER Only**

**The following requirements are not required for new or substantially changed installations using PER.**

29. Where PER is used within the installation a suitable continuous monitoring device for PER shall be installed within the operating area of dry cleaning machine to monitor for leaks and any other malfunctions which may lead to the release of PER.
30. The continuous PER monitoring device shall be maintained and calibrated in accordance with the manufacturers recommendations.
31. All PER machines shall have a secondary water separator followed by an activated carbon adsorption bed to minimise potential solvent losses.

**Bulk Storage of Dry Cleaning Solvents**

**The following requirements only apply where bulk storage of dry cleaning solvents is carried out.**

32. Where delivery vehicles are equipped with back-vent facilities, bulk storage tanks for dry cleaning solvents shall be back-vented to the delivery tank during filling.
33. When connecting hoses before delivery, the vapour return hose shall be connected before any delivery hose. The vapour return hose shall be connected at the road tanker end first, and then at the storage tank end.
34. Bulk storage tanks for solvent storage shall be light coloured to reduce potential breathing losses from storage tanks and located away from potential source of heat [where practicable bulk storage tanks should be located outside].
35. Delivery connections to bulk storage tanks shall be located within a bunded area, fixed, clearly labelled, and locked when not in use.
36. Bulk storage tanks shall be fitted with a reliable means of measuring their contents. {For example a dial gauge; dipsticks are not recommended as they act as potential source of release; if they are used a screw cap must be fitted to prevent release of solvent when not in use.}
- 36.1. All bulk storage installed after 19 May 2005 shall be fitted with high-level (visual and audible alarms or volume indicators to warn of overfilling).
37. Before receipt of a bulk, delivery of cleaning solvent the receiving tank shall be checked to ensure that it has sufficient capacity.
38. Bunding and containment of bulk tanks shall:
- 38.1. Completely surround the bulk liquid storage tanks; and
- 38.2. Be impervious and resistant to the liquids in storage; and
- 38.3. Be capable of holding 110% of the capacity of the largest storage tank
39. Emissions from the filling and topping up of the dry cleaning machine from bulk storage shall be minimised, by the use of closed transfer systems between the bulk storage tank and the machine.


40. Where solvent is hard piped from bulk storage tanks to machines, appropriate measures shall be in place to prevent storage tanks from draining into machines for example: prevention of gravity flow, or siphoning of solvent from the storage tank into the dry cleaning machine.
41. A competent person shall remain near the tanker and keep a constant watch on hoses and connections during unloading.

#### **Notifiable Changes**

42. Should there be any proposed additions, alterations or modifications to the process or equipment subject to this permit, the Regulator shall be notified prior to the implementation of any such proposals.
  - 42.1. Any requirements of the authorising authority in respect of any such additional equipment shall be met.
  - 42.2. The Operator shall notify any change to the trading name or registered address to the Regulator, in writing within 14 days of their occurrence ; and
  - 42.3. If the Operator proposes to make a change in operation of the installation, the Operator must, at least 14 days before making the change, notify the regulator in writing. The notification must contain a description of the proposed change in operation. It is not necessary to make such a notification if an application to vary this environmental permit has been made and the application contains a description of the proposed change. In this condition 'change in operation' means a change in the nature or functioning, or an extension, of the installation, which may have consequences for the environment.
43. If in the unlikely event that an operator is using a substance or preparation which contains VOC and the nature or amount of VOC means that the substance or preparation is assigned one, or more, of the risk phrases R45, R46, R49, R60, R61. The operator shall notify the regular of this in writing:
  - 43.1. Within 28 days of the date that this permit comes into effect or
  - 43.2. Within 28 days of the substrate or preparation being used and/or purchased, which ever is the sooner. So, the mandatory requirements for their control which can be found in PG 6/45 (04) Surface Cleaning (SED Box 6 may be included in the permit.)

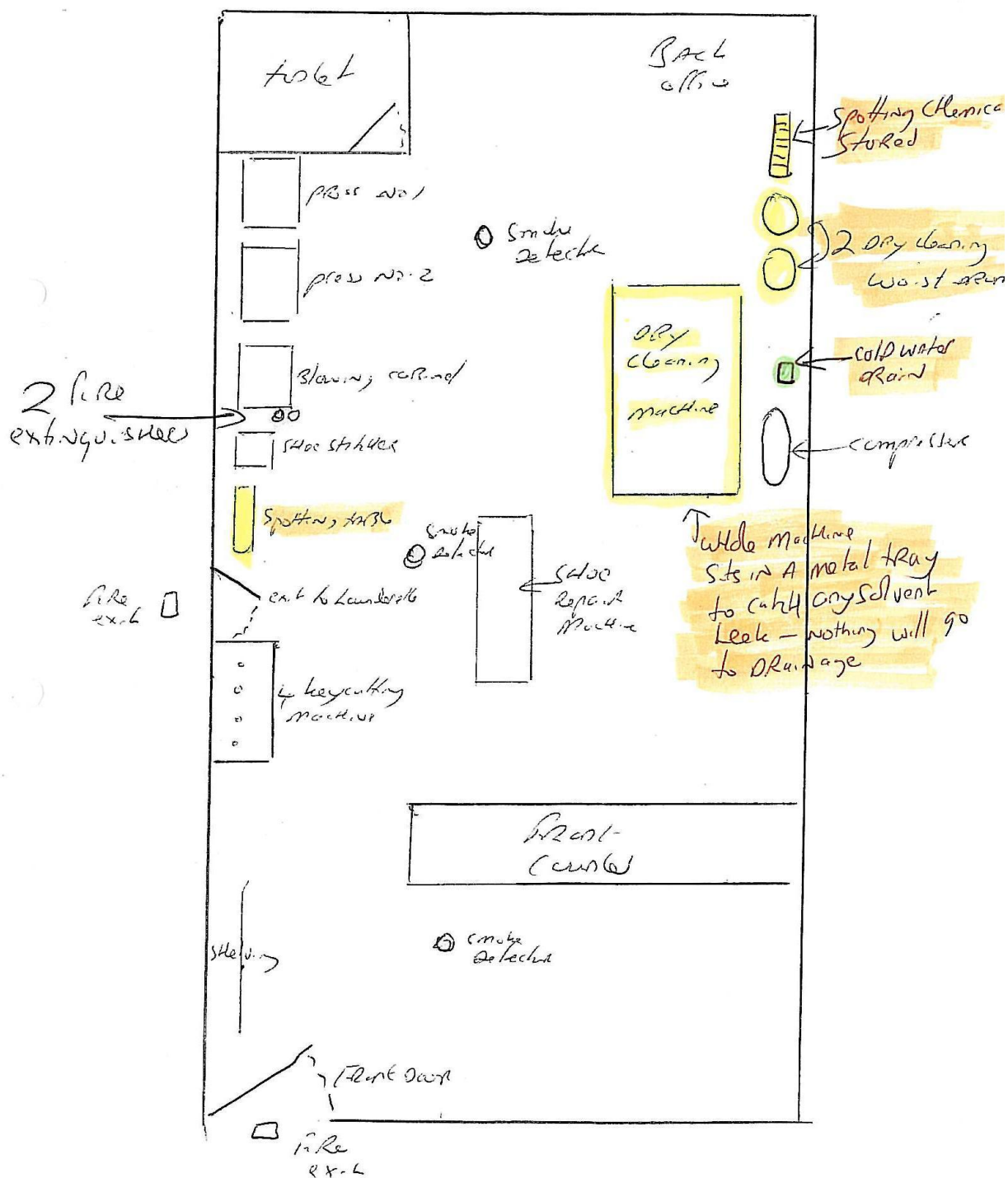
#### **END OF CONDITIONS**

## APPENDIX 1: LOCATION PLAN




KEY  
Process boundary 



## APPENDIX 2: SITE PLAN



## APPENDIX 3: SPECIMEN INVENTORY FOR RECORDING SOLVENT USED AND PRODUCT CLEANED

  
<p align="center"><b>3. Solvent Management Spreadsheets-version for printing</b></p> <p align="center"><b>(for those operators without access to a PC)</b></p>
<p>You must make a return for each site, covering all the machines on the site. You need to record the weight of work processed and the amount of solvent added for each machine as well as the estimated still residue. If you have more than one machine on site then, in order to claim the correct allowance for still residue, keep the residue obtained from each solvent type and each still cleaning method separately. For the Annual Inventory the total weight of solvent used, corrected for solvent sent for recycling and the 'Annual spot cleaning factor', and total weight of work processed, are used to calculate a site emission figure. To help you keep a check on your machines performance you can make a monthly estimate of solvent emissions for each machine.</p>
<p>If you have a single machine on site you can use the 'Annual (Single machine)' sheet.</p>
<p>If you have a multiple machines on site you can use the 'Annual (Multiple machines)' sheet.</p>
<p>Before starting to record solvent usage ensure that the machine is filled to its normal operating level. This is particularly important if you are installing a new machine.</p>
<p>If you anticipate changing or adding a machine during the annual period you should use the multiple machine sheet and show each machine for the period that it is in use.</p>
<p><b>1. Weekly Inventory Sheet:</b></p>
<p>The 'Weekly' Sheet should be filled in for each load on each machine.</p>
<p>1.1 Use a 'Weekly Inventory Sheet' for each machine and fill in the details for the 'Site', 'Machine' and 'Week' at the top.</p>
<p>1.2 For each load, record the weight (kg) on the relevant daily line. Total this up and complete the 'Daily Total Weight' column.</p>
<p>1.3 When you add solvent to the machine, record the volume (litres) in the right hand column. This is the 'Solvent Used'.</p>
<p>1.4 At the end of the week total the daily and then weekly weight of work processed and the amount of solvent added.</p>
<p>1.5 Select the method of still cleaning (tick or mark the appropriate box). Enter any other information you may wish to record. Sign and date the sheet.</p>
<p><b>2. Monthly Inventory Sheet:</b></p>
<p>The 'Monthly' Sheet should be filled out each month. This should be done at the end of each month. If you have more than one machine on site you need to complete a form every month for each machine.</p>
<p>2.1 Use a 'Monthly Sheet' for each machine and fill in the details for 'Site', 'Machine' and 'Month and Year' at the top of the sheet.</p>
<p>2.2 Enter the 'Week ending / Week No.', transfer the weekly totals for 'Weight of work processed' and 'Solvent Used' to the relevant lines under the appropriate week column.</p>
<p>2.3 Estimate the amount of Still residue you have collected from each machine over the month and enter into the relevant line under the appropriate week column. You need this figure so that the monthly solvent usage can be calculated reasonably accurately. When still waste is collected, you may need to adjust the monthly figure so that the total for the preceding period is correct.</p>
<p>2.4 At the end of the month total up the 'Weight of work processed' and 'Solvent used'.</p>
<p>2.5 Select the method of still cleaning the machine uses and place an 'X' in the relevant box. Copy down the 'Estimated still residue for month' to the relevant box and calculate the 'Allowance' using the formula shown. You can now calculate your 'Nominal Monthly Solvent Use' for the machine using the formula provided.</p>
<p>2.6 Select the type of solvent you are using and place an 'X' in the relevant box. You can now calculate the 'Weight of work / litre of solvent', the 'Solvent emitted' and 'Weight of solvent used' for the month.</p>
<p><b>3. Annual Inventory Sheet - Solvent Management Plan</b></p>
<p>The 'Annual' Sheet - Solvent Management Plan must be completed. If you do this at the end of each month you will see how you are progressing with compliance. You need to insert the 'Site' name and 'Year' at the top of the sheet and the 'Annual Spot Cleaning Correction Factor' in the box provided on the lower left of the sheet.</p>
<p>3.1 On the 'Annual Sheet', complete the details for 'Site' and 'Year' at the top of the sheet.</p>
<p>3.2 Record the month and year in the left hand column.</p>
<p>3.3 Enter the 'Annual Spot Cleaning Correction Factor' in the box provided on the lower left of the sheet.</p>
<p>3.4 Transfer the monthly totals for 'Weight of work processed' and 'Weight of solvent used' to columns 'a' and 'b'. Do this for each machine if you have more than one machine and are using the 'Annual (Multiple machines)' sheet.</p>
<p>3.5 You can also transfer the monthly totals for 'Estimated still residue' to the columns on the right if you wish, so that you can manually check that the totals for the year for each still cleaning method and solvent type to ensure that they correspond to your waste collection transfer note totals.</p>
<p>3.6 If you want to check your ongoing solvent mileage then total the 'Monthly weight of work processed' and 'Weight of solvent used' for all the months and calculate the 'Monthly solvent emitted per kg of work processed' using the formula provided.</p>
<p>3.7 To obtain the annual result, sum the 'Total annual weight of work processed' and then the 'Total annual weight of solvent used' which should include the 'Annual spot cleaning correction factor'.</p>
<p>3.8 Using the formula provided calculate the 'Annual total of solvent emitted per kg of work processed'. The result should be 20 g/kg or less.</p>
<p>3.9 You can also calculate the 'Weight of work required to comply with regulations (kg)', if you need to, using the formula provided.</p>

Site: .....				Year: .....				
Month and Year	Monthly weight of work processed	Monthly weight of solvent used	Monthly solvent emitted per kg of work processed	Estimated still residue				
	a	b	l	(Use this to check the total for each method of still cleaning against your waste collection notes, adjust the final months figure as necessary to correspond)				
	(kg)	(kg)	$= b \times 1000 \div a$ (g/kg)	(litres)				
Annual totals								
	n	= Total b						
Annual Spot Cleaning Correction Factor (see Note 2):	Total annual weight of solvent used			Annual total of solvent emitted per kg of work processed				
m	p			q				
(kg)	$= \text{Total b} \div m$ (kg)			$= p \times 1000 \div n$ (g/kg)				
				Annual result				
Weight of work required to comply with regulations (kg): $= p \times 50$				For compliance the 'Annual result' should be 20 or less.				

1. Refer to written explanation of regulations for more details.  
 2. If solvent borne spot cleaners are used, enter either 10kg in the 'Annual Spot Cleaning Factor' or the total weight of the solvent content used, as advised by your Supplier.  
 3. The centre column provides the weight of solvent in grams emitted per kg of work processed (g/kg), this is needed to satisfy the legal requirement.

Site .....				Machine .....								Week ending / Week No. ....								
Load No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Daily Total Weight (kg)	Solvent Added (litres)			
Monday	Weight																			
Tuesday	Weight																			
Wednesday	Weight																			
Thursday	Weight																			
Friday	Weight																			
Saturday	Weight																			
Sunday	Weight																			
																Total for Week				
Indicate as appropriate	Method of still cleaning		Date still cleaned		Maintenance and/or service carried out (enter date)															
	Manual rake out				Details:															
	Pumped out																			
Activity		Date																		
Water separator cleaned																				
Signed .....		Date .....																		
The Total Weight for Week figure and details of Solvent Added should be transferred to your MONTHLY INVENTORY SHEET																				

<b>Site:</b> .....				<b>Month and year:</b> .....			
<b>Machine:</b> .....							
<b>Week ending / Week No.</b>							
<b>Weight of work processed (kg)</b>						<b>Monthly Total Weight (kg)</b>	
						<b>a</b>	
<b>Solvent used (litres)</b>						<b>Monthly Total (litres)</b>	
						<b>c</b>	
<b>Estimated still residue for month (litres)</b>						<b>d</b>	
Note: Estimate the amount of residue collected so that a draft solvent usage figure can be obtained. You will need to adjust this figure from time to time so that the total for the year corresponds to your waste collection transfer notes.							
<b>Still type / Allowance factor</b>							
<b>Method of still cleaning</b>		<b>Waste Allowance Factor</b>		<b>Total</b>		<b>Allowance</b>	
		<b>e</b>		<b>d</b>		<b>f</b> $= e \times d$	
Manual rake out				0.15			
Pumped out				0.6			
<b>Nominal Monthly Solvent Use</b>		<b>(litres)</b>		<b><math>g = c - f</math></b>			
<b>Solvent emission calculation</b>							
<b>Type of Solvent</b>		<b>Factor: specific gravity of solvent</b>		<b>Weight of work / litre of solvent</b>		<b>Solvent emitted</b>	
		<b>(g/l)</b>		<b>(kg / l)</b>		<b>g / kg</b>	
		<b>h</b>		<b>j</b>		<b>k</b>	
				$= a \div g$		$= h \div j$	
						<b>b</b>	
						$= g \times (h \div 1000)$	
Perc		1600					
Siloxane		970					
Hydrocarbon		970					
Other							
<b>Note: To comply with the regulations the 'Solvent emitted' should be 20g/kg or less</b>							

## **APPENDIX 4: SCHEDULE OF PROCEDURES, CHECKS AND MAINTENANCE REQUIREMENTS**

Manufacturers of machines supply operating and maintenance manuals for their machines in order to optimise the machine performance. Good practice and common requirements in these manufacturers' manuals are checks daily, weekly and at other intervals in the following areas: (particularly for PER machines). The following describes typical checks found in machine manufacturers' manuals.

### **Daily leak tests from areas such as:**

- cage door gasket
- button trap lid
- air duct inspection hatch
- filter seals
- lint filter
- main bearing seal
- vapour line
- filter dump valve
- fan housing inspection hatch
- heating coil battery
- fresh air dampers
- solvent valves
- recovery head
- cooling coil battery
- still doors
- solvent tank sight glasses
- solvent pipe flanges

**Vapour leaks are best detected during the early stages of the drying cycle.**

### **Weekly checks of common components:**

- all drying and still thermostats
- level controls in the cage and still
- the still pressure relief device
- draining line on the drum
- for by-passing of the lint filter, which may lead to blocking of the drying circuit
- button trap is functioning correctly and debris cannot pass the trap.

### **Common parts on machines which may need replacement or cleaning include:**

- door seals: wipe clean all door seals daily and replace annually
- button trap (manual): clean sieve twice daily and after lint loads
- lint filter (manual): clean twice daily
- water separator: drain and clean every two weeks; drain excess water daily
- solvent pump: check for leaks after repair or maintenance
- filters: drain spent cartridges in the machine overnight; check for leaks after replacement
- still: empty at least once per week
- recovery condensers: clean condenser fins on air cooled refrigeration systems on a monthly basis.

**End of Permit**