LAPPC Application Form : to be Completed by the Operator

For Local Authority use		
Application Reference:	Officer Reference:	Date Received:

A 1.1 Name of the Installation

NP Aerospace – Site 1

A 1.2 Please Give the Address of the Site of the Installation

Unit 3 Central City Industrial Estate, Red Lane, Coventry, West Midlands

Postcode: CV6 5RY

Telephone Number: 0247 665904

Ordnance Survey National Grid Reference: ***8 characters***
For example SJ 123 456

S	P		3	4	5		8	0	4

A 1.3 Existing Permit

Please give details of any existing LAPPC or LA-IPPC permit for the installation, including reference number(s):

NONE

Please provide the information requested below about the "Operator", which means the person who it is proposed will have control over the installation in accordance with the permit (if granted).

A 2.1 The Operator - please Provide the Full Name of Company or Corporate Body

N.P. Aerospace Ltd

Trading / Business Name: (if different)

Registered Office Address:
473 Foleshill Road, Coventry

Postcode: CV6 5AQ

Principal Office Address: (if different)

Postcode:

Company Registration Number:

A 2.2 Holding Companies

Is the operator a subsidiary of a holding company within the meaning of Section 736 of the Companies Act 1985?

No [ ]

Yes [X] **Name of Ultimate Holding Company:**

The Morgan Crucible Company PLC

Registered Office Address:
The Morgan Crucible Company plc, Quadrant, 55-57 High Street, Windsor, Berkshire

Postcode: SL4 1LP

Principal Office address: (if different)

Postcode:

Company Registration Number:

3472480

A 3.1 Who can we Contact about your Application?

It will help us to have someone who we can contact directly with any questions about your application. The person you name should have the authority to act on behalf of the operator. This could be an agent or consultant rather than the operator.

Name: Steve Butler

Position: Associate Senior Manager

Address: C/O ENVIRON UK Ltd, Box House, Box, Wiltshire

Postcode: SN13 8AA

Telephone Number: 01225 748420

Fax Number: 01225 748421

E-mail Address: sbutler@uk.environcorp.com

B 1 ABOUT THE INSTALLATION

When filling in this Section please refer to Schedule 1 Part 2 of the EP Regulations (see P1 Section 2 of this form for website address)

Please fill in the table below with details of all the current activities in operation at the whole installation.

In Column 1 Box A Activities in the Stationary Technical Unit

Please identify all activities listed in Schedule 1 of the EP Regulations that are, or are proposed to be, carried out in the stationary technical unit of the installation

In Column 1 Box B Directly Associated Activities

Please identify any directly associated activities that are, or are proposed to be, carried out on the same site which:

- have a technical connection with the activities in the stationary technical unit,
- could have an effect on pollution.

In Column 2 Boxes A and B Schedule 1 References

Please quote the Chapter number, Section number, then Paragraph and Sub-paragraph number as shown in Part 2 of Schedule 1 of the EP Regulations. For example, *Manufacturing glass where the use of lead compound is involved,* would be listed as Chapter 3, Section 3.3, Part B(b).

B 1.1 Installation Table for New Permit Application

COLUMN 1 Box A - Activities in the Stationary Technical Unit	COLUMN 2 Box A - Schedule 1 References
Surface Cleaning	Chapter 7 – SED Activity
Di-isocyanate Process	Chapter 4.1, Part B
COLUMN 1 Box B - Directly Associated Activities	COLUMN 2 Box B - Schedule 1 References

B 1.2 Why is the Application Being Made?

[ ] The installation is new.

[X] It is an existing installation but changes to the installation or to the EP Regulations means that an LAPPC Part B Permit is now required

B 1.3 Site Maps

Please provide:

- A suitable map showing the location of the installation clearly defining extent of the installations in red.

  Document Reference: UK14-15348/2 NP Aerospace Site 1 EPR Application

- A suitable plan showing the layout of activities on the site, including bulk storage of materials, waste storage areas and any external emission points to atmosphere.

  Document Reference: UK14-15348/2 NP Aerospace Site 1 EPR Application

B 2 THE INSTALLATION

Please provide written information about the aspects of your installation listed below. We need this information to determine whether you will operate the installation in a way in which all the environmental requirements of the EP Regulations are met.

B 2.1

Describe the proposed installation and activities and identify the foreseeable emissions to air, water and land from each stage of the process (this will include any foreseeable emissions during start up, shut down and any breakdown/abnormal operation).

The use of process flow diagrams may aid to simplify the operations.

Document Reference: UK14-15348/2 NP Aerospace Site 1 EPR Application Section 2.1

B 2.2

Once all foreseeable emissions have been identified in the proposed installation activities, each emission should be characterised (including odour) and quantified.

Atmospheric emissions should be categorised under the following:

i. Point source (e.g. chimney/vent, identified by a number and detailed on a plan).
ii. Fugitive source (e.g. from stockpiles / storage areas).

If any monitoring has been undertaken please provide the details of emission concentrations and quantify in terms of mass emissions. If no monitoring has been undertaken please state this.

(Mass Emission - the quantification of an emission in terms of its physical mass per period of time. For example grams per hour, tonnes per year).

B 2.3

For each emission identified from the installation's activities describe the current and proposed technology and other techniques for preventing or, where that is not practicable, reducing the emissions. If no techniques are currently used and the emission goes directly to the environment without abatement or treatment, this should be stated.

Document Reference: UK14-15348/2 NP Aerospace EPR Permit Section B2.3

B 2.4

Describe the proposed systems to be used in the event of unintentional releases and their consequences. This must identify, assess and minimise the environmental risks and hazards and provide a risk based assessment of any likely unintentional releases, including the use of historical evidence. If no assessments have been carried out please state.

Document Reference: UK14-15348/2 NP Aerospace EPR Permit Section B2.4

B 2.5

Describe the proposed measures for monitoring all identified emissions including any environmental monitoring and the frequency, measurement methodology and evaluation procedure proposed (e.g. particulate matter emissions, odour etc.). Include the details of any monitoring which has been carried out which has not been requested in any other part of this application. If no monitoring is proposed for an emission please state the reason.

Document Reference: UK14-15348/2 NP Aerospace EPR Permit Section B2.5

B 2.6

Provide detailed procedures and policies of your proposed environmental management techniques in relation to the installation activities described.

Document Reference: UK14-15348/2 NP Aerospace EPR Application Section B2.6

B 3 IMPACT ON THE ENVIRONMENT

B 3.1

Provide an assessment of the potential significant local environmental affects of the foreseeable emissions (for example, is there a history of complaints; is the installation in an Air Quality Management Area?).

Document Reference: UK14-15348/2 NP Aerospace EPR Application Section B3.1

B 3.2

Are there any sites of special scientific interest (SSSIs) or European Sites which are within either:

- 2 kilometres for an installation which includes Part B combustion, incineration (but not crematoria), iron and steel and non ferrous metal activities
- 1 kilometre for Part B mineral activities and cement and lime installations
- ½ a kilometre for all other Part B activities

No [X]

Yes [ ] Please give names of the sites.

B 3.3

Provide an assessment of whether the installation is likely to have a significant effect on such sites and, if it is, provide an assessment of the implications of the installation for that site, for the purposes of the Conservation (Natural Habitats etc.) Regulations 1994.

Document Reference: UK14-15348/2 NP Aerospace EPR Application Section B3.3

B 4 ENVIRONMENTAL STATEMENTS

B 4.1

Has an environmental impact assessment been carried out under The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999, or for any other reason with respect to the installation?

No [X]

Yes [ ] Please supply a copy of the environmental impact assessment and details of any decision made.

Document Reference: _____

B 5 ADDITIONAL INFORMATION

Please supply any additional information which you would like us to take account of in considering this application.

Document Reference: UK14-15348/2 NP Aerospace EPR Application Section B5

C 1 FEES AND CHARGES

The enclosed charging scheme leaflet gives details of how to calculate the application fee. Your application cannot be processed unless the application fee is correct and enclosed.

C 1.1 Please State the Amount Enclosed as an Application Fee for this Installation

£ 1579=00 Cheques should be payable to: **Coventry City Council**

We will confirm receipt of this fee when we write to you acknowledging your application.

C 1.2

Please give any company purchase order number or other reference you wish to be used in relation to this fee.

GD51003837100

C 2 ANNUAL CHARGES

If we grant you a permit you will be required to pay an annual subsistence charge: failure to do so will result in revocation of your permit and you will not be able to operate your installation.

C 2.1

Please provide details of the address you wish invoices to be sent to and details of someone we may contact about fees and charges within your finance section.

Matt Larwood, Procurement Manager,

NP Aerospace, 473 Foleshill Road, Coventry, West Midlands

Postcode: CV6 5AQ

Telephone Number: 0247 670 2802

C 3 COMMERCIAL CONFIDENTIALITY

C 3.1

Is there any information in the application that you wish to justify being kept from the public register on the grounds of commercial confidentiality?

No [X]

Yes [ ]

Please provide full justification, considering the definition of commercial confidentiality within the EP Regulations.

Document Reference: _____

C 3.2

Is there any information in the application that you believe should be kept from the public register on the grounds of national security?

No [X]

Yes [ ]

Do not write anything about this information on this form. Please provide full details on separate sheets, plus provide a copy of the application form to the Secretary of State for a Direction on the issue of National Security.

C 4 DATA PROTECTION

The information you give will be used by the Local Authority to process your application. It will be placed on the relevant public register and used to monitor compliance with the permit conditions. We may also use and/or disclose any of the information you give us in order to:

- Consult with the public, public bodies and other organisations.
- Carry out statistical analysis, research and development on environmental issues.
- Provide public register information to enquirers.
- Investigate possible breaches of environmental law and take any resulting action.
- Prevent breaches of environmental law.
- Assess customer service satisfaction and improve our service.
- Respond to requests for information under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004 (if the Data Protection Act allows).

We may pass on the information to agents/representatives who we ask to do any of these things on our behalf.

It is an offence under Section 38 of the EP Regulations, for the purpose of obtaining a permit (for yourself or anyone else) to:

- Make a false statement which you know to be false or misleading in a material particular.
- Recklessly make a statement which is false or misleading in a material particular.

If you make a false statement we may prosecute you, and if you are convicted, you are liable to a fine or imprisonment (or both).

C 5 DECLARATION

C 5.1 Previous Offences (please delete as applicable)

~~I/We certify~~:

EITHER

No offences have been committed in the previous five years which are relevant to my/our competence to operate this installation in accordance with the EP Regulations

OR

The following offences have been committed in the previous five years which may be relevant to my/our competence to operating this installation in accordance with the Regulations:

_____

_____

Signature: [redacted]

Name: Baljit Shergill

Position: Financial Director

Date: 23/5/10

C 5.2 Signature of Current Operator(s)*

I / ~~We certify~~ that the information in this application is correct. I / We apply for a permit in respect of the particulars described in this application (including supporting documentation) I / we have supplied.

Please note that each individual operator must sign the declaration themselves, even if an agent is acting on their behalf.

For the Application from: NP Aerospace Ltd

Installation Name: NP Aerospace – Site 3

Signature: [redacted]

Name: Baljit Shergill

Position: Financial Director

Date: 23/5/10

Signature: _____

Name: _____

Position: _____

Date: _____

* *Where more than one person is defined as the operator, all should sign. Where a company or other body corporate - an authorised person should sign and provide evidence of authority from the board of the company or body corporate.*

NP Aerospace
EPR Part B Application
Site 3 - Red Lane Site

Prepared for:

NP Aerospace
Coventry

Prepared by:
ENVIRON UK Ltd
Box House, Box,
Wiltshire,
SN13 8AA

Date:
May 2010

Project or Issue Number:

UK14-15348/2

Contract/Proposal No:	UK14-15348
Issue:	1
Author (signature):	Steve Butler
Project Manager/Director (signature):	Alan Fowler
Date:	7th May 2010

Version Control Record

Issue	Description of Status	Date	Reviewer Initials	Authors Initials
1	First Issue to Coventry City Council	07/05/10	ML	SMB

Contents

B1 Introduction

NP Aerospace, part of The Morgan Crucible Company design, develop and precision-engineer composite protection equipment and components for the defence, security and general engineering markets.

The company has been established in Coventry for over 50 years and now specialises in the development of composite technologies used for the replacement of traditional materials in highly demanding environments.

The company now primarily manufactures body armour, helmets, bespoke vehicle panels and protective systems using composite technologies for a wide variety of applications. The company operate two key production facilities in Coventry both of which are required to be permitted separately under the Part B Environmental Permitting Regulations 2007.

The requirement for permitting has come about following the very rapid growth of the company in light of the demand for its products in the military and defence markets. This rapid expansion has caused to consumption and usage of solvents to quickly exceed the applicable Part B triggers thresholds stated within the EPR 2007 for di-isocyanate usage and solvents.

Although a wide number of activities are carried out on Site 3, it is NP Aerospace's use of solvents for surface cleaning and their use of di-isocyanate containing polyurethane spray coatings that meet the definition of an 'Installation' as defined by Chapters 4.1 and 7 of Schedule 1, Part 2 of the Environmental Permitting (England and Wales) Regulations 2007 respectively. This application relates solely to the to the surface cleaning and spray coating activities associated with **NP Aerospace's assembly plant located in the Red Lane Industrial Estate**, Coventry and has been structured around the requirements of Coventry City Councils LAPC application form.

This application forms one of two applications that NP Aerospace are making in relation to their Coventry Manufacturing sites.

As the site does not currently meet the indicative BAT requirements stated by the applicable sector guidance notes throughout the application, a number of suggested improvement conditions with suggested timeframes have been made in order to ensure timely compliance with the requirements.

B 2 The Installation

Section B 2.1

'Describe the proposed installation and activities and identify the foreseeable emissions to air, from each stage of the processes (this include any foreseeable emissions during start up, shut down and any breakdown/abnormal operation)'

The Red Lane site assembles and constructs armoured vehicles for Military and Civilian use. Within this process the site uses di-isocyanate containing surface coatings and solvents in the preparation and assembly of composite armour plating. The quantities of materials now used within this activity meets the definition of an Installation as defined by the regulations and fall under section 4.1 and section 7 Part B of Schedule 1, Part 2 of the Environmental Permitting (England and Wales) Regulations 2007.

The general descriptions of these activities are;

- **Degreasing and surface Cleaning of armour plating:** machined metal armour plating is degreased using hand applied acetone on a flat bed for the removal of residual oils greases and glues prior to the application of adhesives and further composite layers. This process is currently carried out within an open bay.
- **Spray booth:** Composite vehicle armour panels are spray coated with a proprietary two pack polyurethane coating which contains di-isocyanate. Coating of components is within a dry backed paint spraying booth, fitted with filtered extraction that discharges to air.

Annual solvent use and di-isocyanate usage at the Red Lane site is estimated to be at 10 tonnes respectively.

The principal emissions arising from site are the fugitive releases of volatile organic compounds (VOCs) and the controlled extraction of particulates and di-isocyanates from the application of polyurethane coatings. A significant majority of the emissions from the di-isocyanate process will be captured by the filtration systems within the spray booth prior to the release to atmosphere. The spray booth is equipped with a dedicated roof mounted stack.

The figure below schematically represents the site and shows the location of the spraying booths and degreasing area.

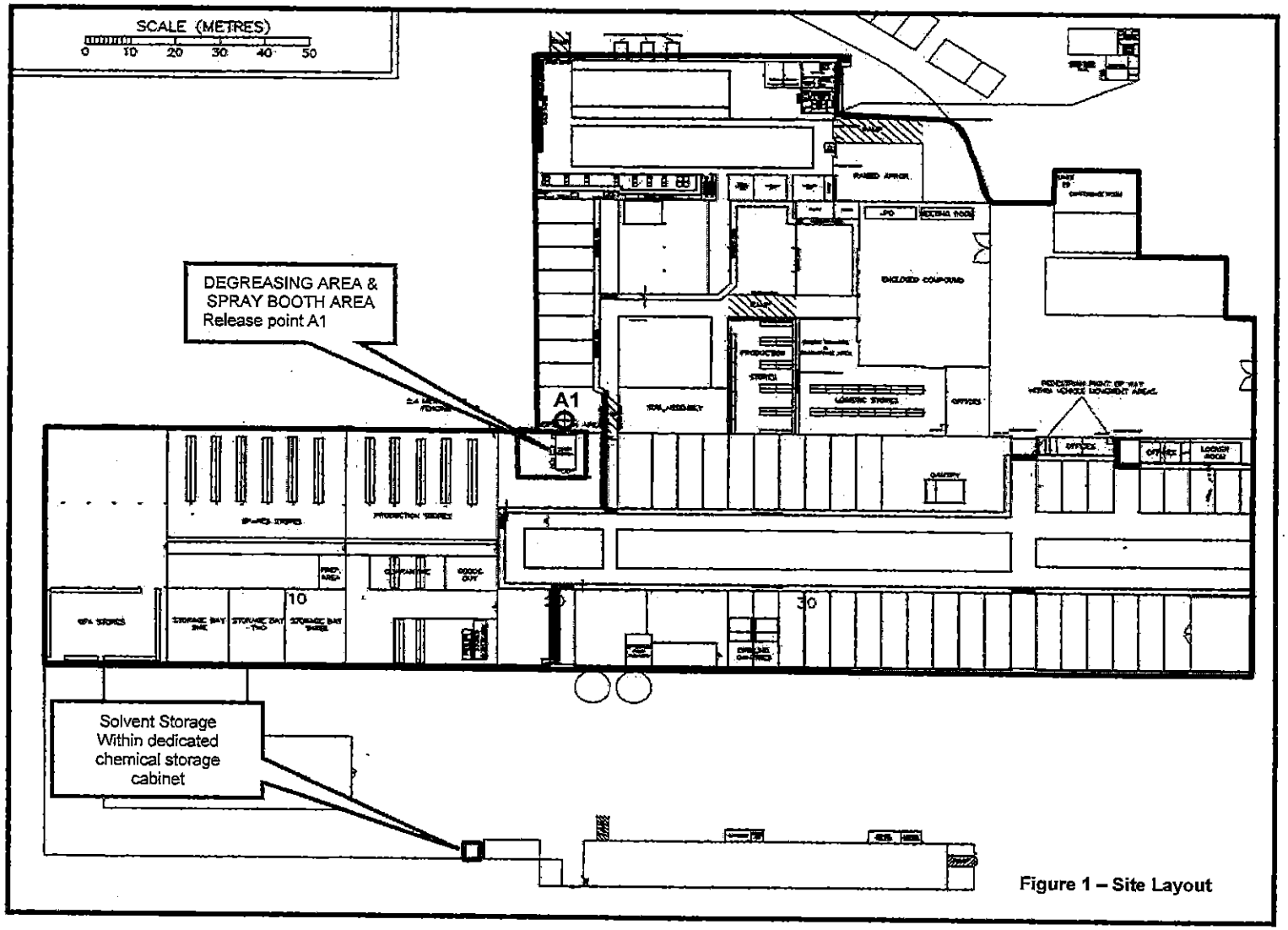

Figure 1 – Site Layout

B 2.1 Component Manufacture

B 2.1.1 Raw Material Storage

NPA receive, store and handle two key raw materials for the site.

- Acetone – for use as a degreaser for surface cleaning
- Polyurethane coatings – a proprietary 2 pack di-isocyanate coating for the spray application as a surface coating. These resin element of these materials have a content of approximately 25% MDI(Diphenylmethane-4,4'-di-isocyanate).

Acetone is stored externally in a dedicated storage cabinet with integral secondary containment. This cabinet has controlled access and is managed by the area operations manager (see Figure 1: Site Layout)

The site has a working inventory of one barrel, located on the shop floor, with one further barrel being stored for use.

Barrels are transported from the storage area by Fork Lift Truck, using a dedicated barrel lifting tool.

Polyurethane coatings are stored internally within a dedicated area local to the point of use. The storage area is protected from vehicular traffic.

B 2.1.2 Surface Cleaning and degreasing

Machined steel plates for manufacture into armour plating are degreased by hand using acetone. Acetone is dispensed from a barrel into a local bench can. The bench can is installed with a 'dasher' piston type plate for flame arrestment and a sprung lid to minimise vapour escape.

Acetone is applied to the armour plate by use of a clean rag which is dipped into the bench can and applied as necessary. Although all reasonable care is taken to ensure good housekeeping and efficient use of materials, ultimately all acetone is 'lost' to atmosphere through volatilisation.

There is no extraction or solvent capture as part of this process.

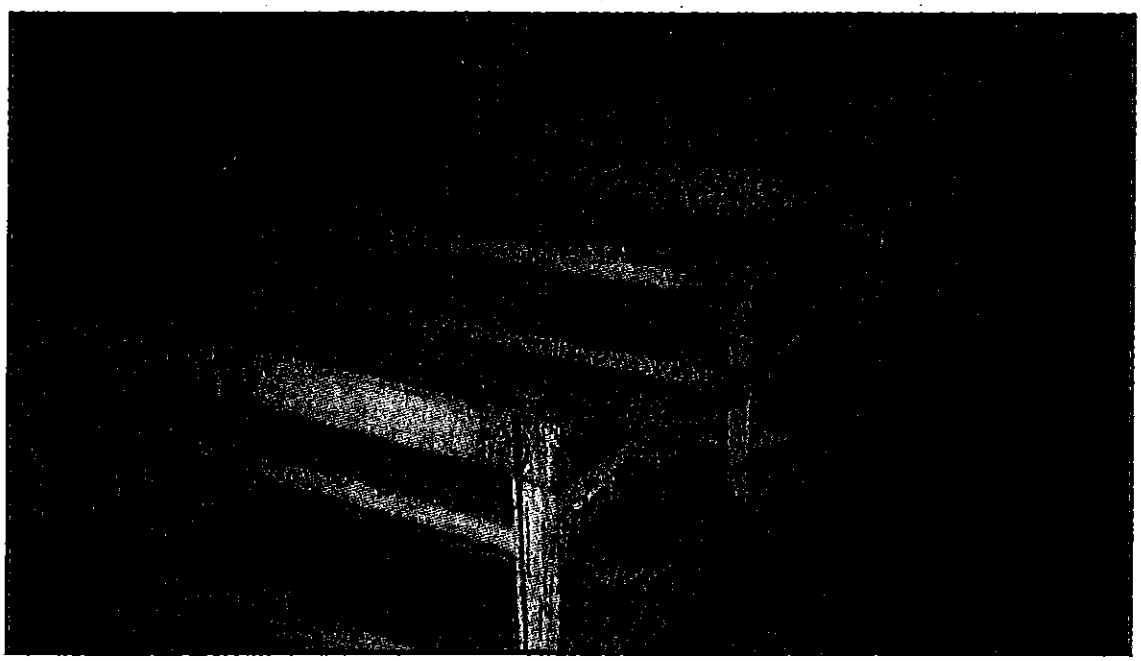

Photo 1: Trestle tables used for degreasing

B 2.1.3 Spray Coating Booth

The Spray Coating Booth is located is located in the approximate centre of the site. The area has one spray booth which is used for the application of polyurethane coatings and preparations. This facility is the only such facility on site.

The booth is equipped with a multistage fabric cartridge filters for the removal of particulate, that extracts to air via an induced draft fan system. The extraction system exhaust to atmosphere via a dedicated stack (identified as Authorised Release point A1).

Under normal operation the main access doorway at the front of each booth is fully sealed to prevent the escape of fugitive emissions.

Photo 2: Spray Coating Booth

B 2.1.4 In process Control Measures

It is acknowledged by NP Aerospace that the current surface cleaning practices on site do not meet the required levels of control stated within Sector Guidance Note PG6-45, by virtue of the fact that there is no enclosures, extraction or capture of the solvent emissions.

However it should be noted that where manual cleaning is unavoidable:-

- Cleaning solvents will be kept in enclosed containers whilst not in active use;
- Wiping cloths or brushes will be either pre-impregnated or, using a piston type dispenser or similar device, be impregnated with cleaning solvent in a controlled manner; and
- Used wiping cloths or brushes will be stored in enclosed containers pending recovery or disposal.

The following handling and storage controls are in place at site to ensure that emissions of di-isocyanate and particulate are controlled.

- The receipt, handling and storage of coatings are carried out internally so as to minimize the emission of di-isocyanate and any volatile organic compounds to air.
- All vessels or containers containing coatings are lidded or enclosed when not in use.
- All mixing, emptying and transfer of coatings or raw materials containing VOC's is undertaken within the extracted spray booths.
- HVLP guns and application equipment will be cleaned within areas containing abated extraction.

The following waste management controls are in place at NPA regarding the control of VOC containing wastes;

- All solvent containing and potentially odorous waste materials are stored in suitable enclosed containers.
- Prior to disposal empty containers and drums are closed to minimize emissions. These containers are labelled, so that all personnel that handle them are aware of their contents and hazardous properties.
- Prior to disposal, used wipes or other items contaminated with organic solvents are placed in a suitably labelled metal bin fitted with a self-closing lid.

The following emergency management controls are in place at NP Aerospace regarding the control of VOC containing materials;

- A supply of absorbent material is held on site for use in the event of spillage of organic solvents. Such spillages will be cleaned up immediately and the collected material shall be held in an enclosed container pending removal from site.

The company has identified a series of improvements that they wish to carry out to address the issued identified at site.

Suggested Improvement Condition 1

NP Aerospace will within 6 months of the permit being issued provide a means of extraction and abatement for the surface cleaning activities that shall ensure that fugitive emissions to atmosphere are minimised and compliant with the ELV requirements of the EPR 2007.

Section B 2.2

'Once all foreseeable emissions have been identified in the proposed installation activities, each emission should be characterised (including odour) and quantified'

The configuration of the NPA site means that at present there is only one process release point associated with the surface cleaning and spray coating activities.

As stated within section B2.1 there is no means of extraction and abatement associated with the surface cleaning activities on site. This is proposed to be addressed through the implementation of *'Suggested Improvement No.1'.*

The spray coating process extracts to atmosphere through a dedicated induced draft extraction system to atmosphere. This release point has been identified as Authorised Release Point A1.

Due to the design of the plant, no release points have been manufactured with sampling points or monitoring platforms to facilitate emissions monitoring

Although a number of other minor release points are present on site, these only relate to discrete stacks associated with minor plant and equipment such as local (non process related) extraction, roof vents etc. These systems have been considered insignificant.

The detail associated with the release point is detailed below, within Table 2.2.

Table 2.2 Authorised Release Points

Point Source ID	Process	Point Source	Approx Stack Height (m)	Measured average release concentrations	Abatement technique	Significant emission to atmosphere
A1	Spray Coating Booth	DI-Iso, TPM	15	None available	Particulate filtration	No

In order to address the identified issues in relation to the availability of sampling data the company has the following suggested improvement condition.

Suggested Improvement Condition 2

NP Aerospace shall, within 6 months of the permit being issued shall install monitoring and sampling points to enable the taking of extractive sampling. These sampling points shall be installed to comply with the relevant British Standards and be designed to conform with the Environment Agency Technical Guidance Note M1.

Suggested Improvement Condition 3

NP Aerospace shall within 6 months of the permit being issued carry out extractive sampling of the authorized release point A1 to verify compliance with the permitted consent levels (0.1mg/m^3 Di-isocyanate NCO Group, 100mg/m^3 VOC, 50mg/m^3 TPM)

This sampling shall be carried out by appropriately qualified contractors who are certified to the Environment Agency MCERTS scheme.

All sampling shall be carried out in accordance with the Environment Agency Technical Guidance Note M1.

Section B 2.3

For each emission identified from the installation's activities describe the current and proposed technology and other techniques for preventing or, where that is not practicable reducing the emissions. If no techniques are currently used and the emission goes directly to the environment without abatement or treatment, this should be stated.

B 2.3.1 VOC's

As stated within Sections B2.1 and B2.2 there is currently no extraction and abatement of the VOC emissions arising from the surface cleaning activities. It is proposed that this situation is addressed through the implementation of *'Suggested Improvement Condition 1'*.

The spray booth has been designed to ensure that the emissions to atmosphere are captured and bated prior to release to atmosphere.

The spray booth is fitted with impregnated activated carbon cartridge filters for the capture and abatement of VOC and particulate emissions. The filtration is designed to capture a majority of the emissions and prevent their release to atmosphere.

A number of in-process controls are employed by the site to ensure that the VOC are controlled and minimised. These control measures are stated within Section 2.1.

B 2.3.2 Particulate and Di-isocyanate abatement

The filtration systems installed within the spray booths have been designed to remove all particulate and di-isocyanate emissions arising from the preparation and coating activities on site.

Given that all spraying activities are carried out within the booth and that the NP Aerospace site have a number of various in-process management controls employed at site, it is considered that the particulate emissions and hence Di-isocyanate emissions are controlled and minimised. These control measures are stated within Section 2.1.

Section B 2.4

Describe the proposed system to be used in the event of unintentional releases and their consequences. This must identify, assess and minimise the environmental risks and hazards, provide a risk based assessment of any likely unintentional releases, including the use of historical evidence. If no assessments have been carried out please state.

NP Aerospace operates an Environmental Management System which is in the process of being certified to the International Environmental Management Standard ISO14001:2004. As part of this management system the site operates a number of procedures which must be followed in the event of abnormal emissions, malfunction or breakdown leading to abnormal emissions.

In brief the following measures will be carried out in the event of an incident which gives rise to abnormal emissions.

NP Aerospace will;

- investigate the incident immediately and undertake corrective action;
- adjust the process or activity to minimise those emissions; and
- promptly record the events and actions taken.

The Local Authority will be informed without delay;

- if there is an emission that is likely to have an effect on the local community; and
- in the event of the failure of key abatement plant i.e. the thermal oxidiser unit.

An assessment of the risks and hazards associated with these emissions is included in Table 2.4 below:

Table 2.4: Abnormal and Emergency Incidents				
Incident	**Risks**	**Potential Impact**	**Mitigation measures in place**	**Adequate**
Spillage of bulk materials internally	• Uncontrolled spillages of liquid solvent product to ground • Fugitive emissions to workplace and to environment	• Contamination of local ground-waters and land • Local air impacts (formation of ground level ozone); odour; • Global impacts: greenhouse gases	• All solvent materials are stored within bunded areas • All internal storage areas where bulk solvents are used are equipped with extraction and abatement • All floors and containment measures are sealed with no pollution pathways. • All personnel are trained and qualified • All solvents stored in sealed small volume containers • Spill response equipment available at point of use • All materials clearly identified and labelled • Spill response procedures in place	Yes
Uncontrolled release of coatings and solvents in external areas	• Uncontrolled releases to site drainage systems • Dust emissions to atmosphere	• Contamination of local ground-waters and land • Contamination of storm water systems and controlled waters • Local air impacts (formation of ground level ozone); odour; • Global impacts: greenhouse gases	• All factory floors and roadways are in good condition with no pollution pathways • All personnel are trained and qualified • All solvents stored in sealed small volume containers so limited spillage can occur • Spill response equipment available at point of use • All materials clearly identified and labelled • Spill response procedures in place	Yes
Abatement System failure (coatings and solvents)	• Unabated releases of solvents to atmosphere	• Local air impacts (formation of ground level ozone); odour; • Global impacts: greenhouse gases	• Maintenance procedures in place	Yes
Fire within storage areas/buildings or other	• Uncontrolled emissions to air • Solvents contaminated run off to surface water	• Contamination of storm water systems and controlled waters • Local air impacts Smoke and odour • Global impacts: greenhouse gases	• Site is fire assessed on an annual basis • Site is insurance assessed on an annual basis • Site is equipped with intrinsically safe electrical systems within high VOC usage areas • Site has Emergency response procedures in place for Fire control	Yes

Section B 2.5

Describe the proposed measure for monitoring all identified emissions including any environmental monitoring, and the frequency, measurement methodology and evaluation procedure proposed. (e.g. particulate matter emissions, odour etc). Include the details of any monitoring which has been carried out which has not been requested in any other part of this application. If no monitoring is proposed for an emission please state the reason.

At the time of application no monitoring data is available for the site. It is therefore proposed that within 6 months of the application the following emissions monitoring programme will be carried out by NP Aerospace at the site (as stated within improvement condition 3)

Source ID	Process Source	Emissions monitored	Type of Monitoring	Mont Freq	Method
A1	Surface Cleaning and Spray booths	Particulate VOC Di-Isocyanates	Manual extractive testing	Annually	VOC's: Continuous flame ionisation detector method. EN 13526. Particulate: BS ISO 9096:2003

Upon the availability of the above monitoring information NP Aerospace will submit the emissions data to Coventry City Council for review.

It is proposed that annual compliance monitoring is carried out by the site for the purposes of confirming the adherence to the appropriate ELV limits (0.1mg/m^3 Di-isocyanate NCO Group, 100mg/m^3 VOC, 50mg/m^3 TPM).

NP Aerospace will notify the Local Authority at least 7 days before any periodic monitoring exercise to determine compliance with emission limit values. NPA will also state the provisional time and date of monitoring, the pollutants to be tested and the methods to be used.

Periodic emissions shall be used as a measure of ensuring compliance with the permit requirements.

All monitoring will be carried out by third party contractors, who have been certified and approved to meet the requirements of the MCERTs accreditation scheme operated by the Environment Agency.

All sampling equipment and locations shall be specified to meet EA PPC Monitoring Guidance Note M1.

All techniques that shall be used for the sampling and analysis shall be specified to meet EA PPC Monitoring Guidelines M2.

The results of emission testing will be forwarded to the regulator within 8 weeks of the completion of the sampling.

B 2.5.2 Adverse Results

In the event of any adverse results from monitoring activity NP Aerospace will immediately investigate them as soon as the monitoring data has been received and:

- identify the cause and take corrective action;
- record as much detail as possible regarding the cause and extent of the problem, and the action taken to rectify the situation;
- re-test to demonstrate compliance as soon as possible; and
- notify the regulator.

B 2.5.3 Communication

NP Aerospace will keep records of inspections, tests and monitoring, including all non-continuous monitoring, inspections and visual assessments as part of their Environmental Management System documentation. In such cases current records will be kept on site and made available for the Local Authority to examine.

The Local Authority will be informed of any monitoring to be carried out and the results; the results will include process conditions at the time of monitoring.

Section B 2.6

Provide detailed procedures and policies of your proposed environmental management techniques, in relation to the installation activities described.

The site operates an Environmental Management System that in the process of being certified to the International Environmental Management Standard ISO14001:2004. Within the EMS is a number of specific EHS risk management procedures that have been designed to mitigate the identified risks associated with the operation of the site.

Although the entire content of the EMS have not been included below, a list of specific EMS and Risk Assessment related procedures is provided within Table 2.6 and 2.7 below.

Table 2.6: EMS Summary

ISO Clause*		EMS Manual Section No.	EP Ref. No.
4.1	General Requirements	4.1	–
4.2	Environmental Policy	4.2.	EMS 16P
4.3	Planning	4.3	–
4.3.1	Environmental Aspects	4.3.1	EMS 01P
4.3.2	Legal and Other Requirements	4.3.2	EMS 02P
4.3.3	Objectives, Targets and Programme(s)	4.3.3	EMS 03P
4.4	Implementation and Operation	4.4	–
4.4.1	Resources, Roles, Responsibility and Authority	4.4.1	Section 3
4.4.2	Competence, Training, and Awareness	4.4.2	EMS 05P
4.4.3	Communication	4.4.3	EMS 06P
4.4.4	Documentation	4.4.4	–
4.4.5	Control of Documents	4.4.5	NPA-DOC-003
4.4.6	Operational Control	4.4.6	EMS SERIES
4.4.7	Emergency Preparedness and Response	4.4.7	EMS 0901P
4.5	Checking	4.5	–
4.5.1	Monitoring and Measurement	4.5.1	EMS 10P
4.5.2	Evaluation of Compliance	4.5.2	EMS 11P
4.5.3	Nonconformity, Corrective Action & Preventive Action	4.5.3	EMS 12P
4.5.4	Control of Records	4.5.4	EMS 13P
4.5.5	Internal Audit	4.5.5	NPA-WID-043
4.6	Management Review	4.6	EMS 15P

Table 2.7 EMS Procedures

Document No.	Document/Form Name
EMS16P	Environmental Policy
EMS 01P	Aspects and Impacts
EMS 02P	Legal & Other Requirements
EMS 03P	Objectives, Targets and Programme(s)
EMS 05P	Competence, Training & Awareness
EMS 06P	Communication

EMS 08P	Control of Environmental Operations
EMS 0801P	Storage of Materials
EMS 0802P	Energy Management
EMS 0803P	Waste Management (Non Hazardous)
EMS 0804P	Waste Management (Hazardous)
EMS 0805P	Supply Chain Management
EMS 0806P	Contractor Management
EMS 0901P	Emergency Preparedness and Response
EMS 0902P	Spill Response
EMS 10P	Monitoring and Measurement
EMS 11P	Evaluation of Compliance
EMS 12P	Nonconformity, Corrective Action and Preventative Action
EMS 13P	Control of records
EMS 15P	Management Review
NPA-DOC-003	Control of Documents
NPA-WID-050	Control of Nonconforming products
NPA-DRP-001	Disaster Recovery and Business Continuity Plan
NPA-WID-043	Internal Audits
EMS 01L	Aspects and Impacts Assessment List
EMS 02R	Environmental legal register
BS EN ISO 14001:2004	Environmental management systems – requirements with guidance for use

B3 Impact on the Environment

Section B 3.1

Provide an assessment of the potential significant local environmental effects of the foreseeable emissions (for example, is there a history of complaints, is the installation in an air quality management area?)

The NP Aerospace site is not located within a designated Air Quality Management Area. The site does not have any history of complaints arising from their operations. Not withstanding general impacts associated with operating any manufacturing facility, such as resource depletion, generation of greenhouse gases etc, it is considered that key potential impacts associated with the site will be environmental noise nuisance to neighbouring residential premises.

The noise issues associated with the site are largely mitigated through the use acoustic attenuators, sound insulating enclosures around key plant etc, and are not considered to be a significant issue on site.

Due to the fact that NP Aerospace do not currently have any operating monitoring data for the site, a formal air quality impact assessment has not been carried out. It is proposed that once representative sampling data is available an assessment will be carried out using the Environment Agency H1 screening assessment.

Should the H1 assessment indicate that the impact of the site cannot be regarded as insignificant i.e. Short or Long Term impacts greater that 1% and 10% of the EAS respectively then further modelling using a proprietary modelling package i.e. ADMS4, AERMOD or equivalent shall be carried out.

Suggested Improvement Condition 4

NP Aerospace shall, within 9 months of the permit being issued carry out a Environmental Impact Assessment using the Environment Agency H1 tool. Should the findings of the assessment indicate that the impact of the site cannot be regarded as insignificant i.e. Short or Long Term impacts greater that 1% and 10% of the EAS respectively then further modelling using a proprietary modelling package i.e. ADMS4, AERMOD or equivalent shall be carried out.

Section B 3.2

Are there any sites of special scientific interest (SSSIs) or European Sites which are within 2 kilometres of the installation?

A search of the site using the Multi Agency Geographic Information for the Country Side has been carried out for the presence of the following ecological receptors within 2 km of the installation.

- Biosphere Reserves (GB)
- Marine Nature Reserves (GB)
- National Nature Reserves (GB)
- Ramsar Sites (GB)
- Special Areas of Conservation (GB)
- Special Protection Areas (GB)
- Important Bird Areas (GB)
- Sites of Special Scientific Interest (GB)
- RSPB Reserves (GB)

The findings of the report indicate that there are no sensitive receptors within 2km of the Red Lane Site.

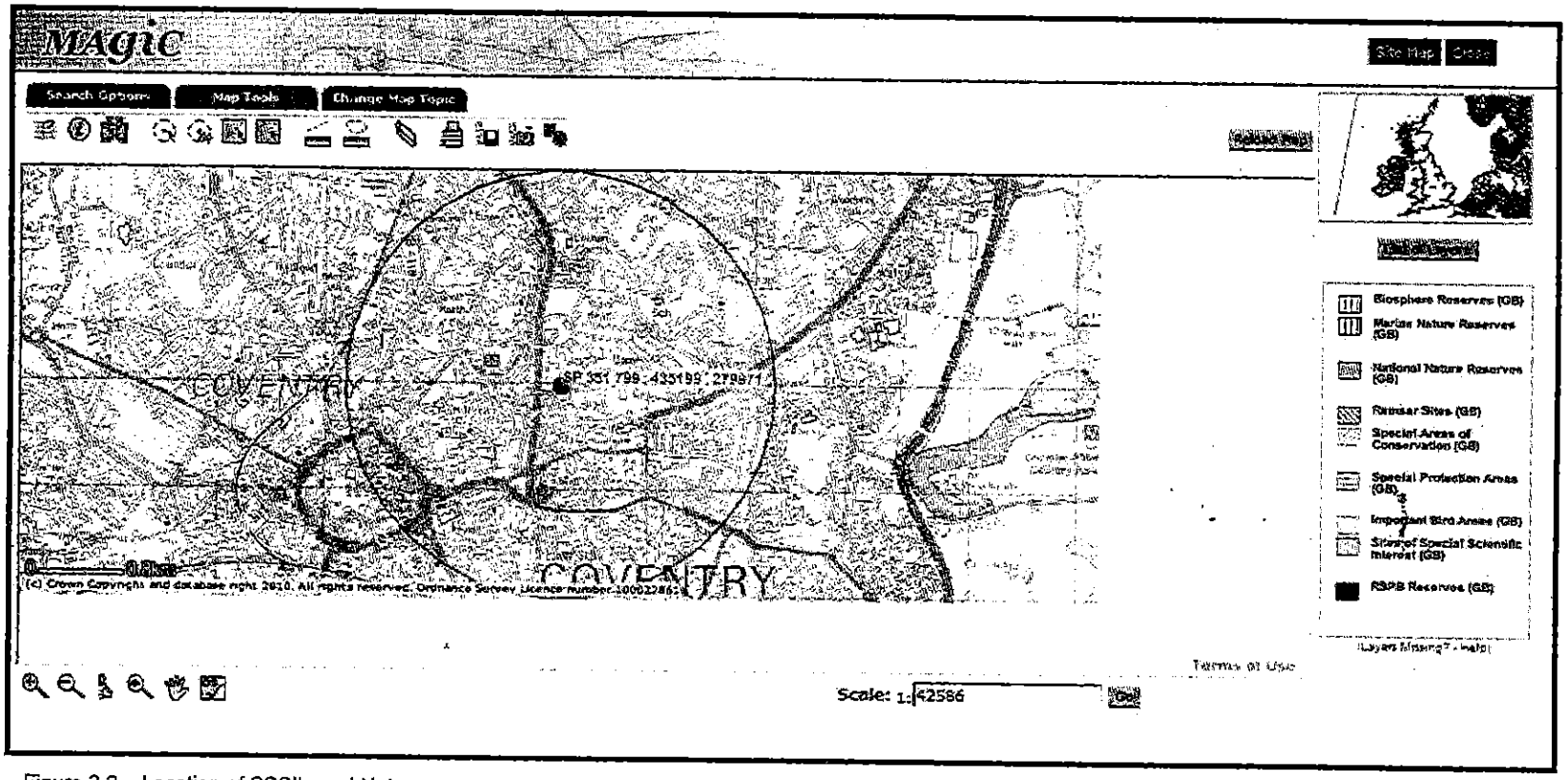

Figure 3.2 – Location of SSSI's and Nature

Section B 3.3

Provide an assessment of whether the installation is likely to have a significant effect on such sites and, if it is, provide an assessment of the implications of the installation for that site, for the purposes of the Conservation (Natural Habitats etc) Regulations 1994.

Due to the nature of the emissions arising from the site, low concentrations atmospheric emissions of VOC's and releases to controlled waters arising from surface runoff, the following potential impacts have been considered;

- The impacts of VOC emissions to atmosphere
- The impacts of surface water run off to controlled waters.

Although air dispersion modelling exercise using dispersion modelling software, has been not yet been carried out (*See 'Suggested Improvement 4'*). It is considered that findings will indicate that there will be no significant offsite local impact associated with these emissions.

The impacts of surface water run off at the site has been discounted due to the presence of pollution prevention devices such as surface water interceptors, Isolation valves, good housekeeping practices and the lack of any significant uncontrolled pollution sources on site.

On a global perspective, the emissions from site will create very minor impacts (relating to the roles of VOC in the creation and formation of low level ozone and there contribution to greenhouse gases. In addition emissions of VOC's, Carbon Monoxide, Nitrogen Dioxide and Particulate Matter primarily have implications for human health, flora and fauna. These impacts are all considered minor.

There are no sensitive ecological receptors areas identified in Figure 3.2.

B4 Environmental Statements

Section B 4.1

Has an environmental impact assessment been carried out under The Town and Country Planning (Environmental Impact Assessment) (England & Wales) Regulations 1999, or for any other reason with respect to the installation.

No

The installation has not required an Environmental Impact Assessment to be carried out under the requirements of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999.

B5 Additional information

Please supply any additional information which you would like us to take account of in considering this application.

B5.1 Solvent Specific Compliance – Risk Phrases

Identify any solvent-based substance used in your process which carry the risk phrases R45, R46, R60 or R61 and prepare and submit a timetable for the substitution of these substances within the shortest possible time, but no later than October 2007

The site does not use any materials with the designated risk phrases R61. Therefore there is no requirement to implement a substitution programme.

B5.2 Solvent Specific Compliance – Compliance Methodology

If your solvent consumption is above the threshold listed in the regulations you will need to demonstrate compliance with either:-

1. *an emission limit for waste gases and fugitive emissions, or*
2. *meet a total emission limit value, or*
3. *implement a Solvent Reduction Scheme*

If you intend demonstrating compliance via a reduction scheme you must provide details of your proposals and methodology, including a timescale with this application.

It is stated within Process Guidance Note 6/45 'Secretary of State's Guidance for Surface Cleaning Activities' SED Box 4 that to demonstrate VOC compliance, all installations must comply with either:

(a) The emission limit in waste gases and the fugitive emission values in SED Box 5 and the emission limits for designated risk phrase materials in SED Box 8; or
(b) The requirements of the total emission limit values in SED Box 7 and the emission limits for designated risk phrase materials in SED Box 8; or
(c) The requirements of the Reduction Scheme (If available) (5.4, 5.6 and SED Box 6) and the emission limits for designated risk phrase materials in SED Box 8

It is proposed emission limit value (methodology 1) will be used to demonstrate compliance with the regulations, therefore SED Box 5 and SED Box 8 requirements will need to be met.

Process Guidance Note PGN6/45 SED Box 5 states that waste gases (i.e. not one that incorporates solvent reclamation or oxidisation), is required to meet 150mg/m^3 VOC's.

Fugitive emissions from the plant will not exceed the 25% requirement.

It is stated with SED Box 8 that for Designated Risk Phrase Materials with risk phrases R45, R46, R49, R60, R61, that an emission limit of 2mg/m^3 will apply where the sum of the mass flows of all the discharges of all the compounds causing the risk phrase labelling is greater or equal to 10 g/h, a limit value of 2 mg/Nm^3 for the mass sum of the individual compounds must apply. Given that products used with designated risk phrases are related to the presence of lead chromate and not solvents this requirement is not considered applicable.

Therefore all emissions of VOC's from release points have been will need to meet the criteria of = or < than 150mg/m^3. SED Box 5 states that where no fixed abatement plant is required[1], then 'annual extractive emissions testing is sufficient as a means demonstrating compliance.

Given that NP Aerospace do not currently have enclosures, extraction or monitoring in relation to the surface cleaning activities, it is proposed that a series of improvements are carried out in site to address the issue. The completion of these improvements will ensure that all of the necessary SED compliance requirements are met.

[1] NP Aerospace do not have any fixed abatement plant (i.e. catalytic oxidisers, thermal oxidisers or bio-scrubbers etc) required for the removal of VOC emissions.