



**Second Report on the implementation of Directive  
1999/13/EC on the limitation of emissions of volatile  
organic compounds due to the use of organic solvents in  
certain activities and installations in Ireland**

**For the reporting period: 1 January 2005 – 31 December 2007**

**In accordance with the questionnaire for Member States  
contained in Commission Decision 2006/534/EC**

**Report date: September 2008**

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**Report on the implementation of Directive 1999/13/EC  
on the limitation of emissions of volatile organic  
compounds due to the use of organic solvents in certain  
activities and installations in Ireland**

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## **SECTION 1 EXECUTIVE SUMMARY**

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### **1.1 INTRODUCTION**

Ireland has fully transposed Directive 1999/13/EC<sup>1</sup> on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain activities and installations into Irish law. The Solvents Directive 1999/13/EC has been brought into effect in Ireland through the Emissions of Volatile organic compounds from Organic Solvents Regulations 2002 (S.I. No. 543 of 2002)<sup>2</sup>

Ireland is using both the IPPC licensing system and a unique scheme, the Accredited Inspection Contractor (AIC) scheme, to implement the Solvents Directive 1999/13/EC.

### **1.2 BACKGROUND**

The Solvents Directive 1999/13/EC has been drawn up to address the harmful effects of organic solvents on human health and the environment.

All Member States are required to report to the Commission every three years on the implementation of the Solvents Directive 1999/13/EC as set out in Article 11(1). The first report was submitted to the European Commission in October 2005 and is available at [www.epa.ie](http://www.epa.ie).

This second report on the implementation of the Solvents Directive 1999/13/EC covers the period 1<sup>st</sup> January 2005 to 31<sup>st</sup> December 2007, as prepared in accordance with a questionnaire set out in Commission Decision 2006/534/EC

### **1.3 NUMBER OF IRISH INSTALLATIONS WHICH FALL UNDER SOLVENTS DIRECTIVE 1999/13/EC**

There are 57 relevant facilities authorised under IPPC, and 235 non-IPPC installations registered under the AIC scheme. This compares to 78 IPPC facilities and 1 non-IPPC facility reported in the first report. It is estimated that there are 209– 266 facilities still under investigation as suspected to come under the regulations. This compares to a figure of 2142 suspected installations in 2005.

More detail is given in the answer given to question no. 2 in the questionnaire section of this report.

### **1.4 SUMMARY OF ACTIVITIES**

Ireland has carried out the following in the implementation of the Solvents Directive 1999/13/EC:

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<sup>1</sup> Herein called the Solvents Directive 1999/13/EC

<sup>2</sup> Herein called the Solvents Regulations 2002

#### 1.4.1 Transposition of Legislation:

- Full transposition of the Solvents Directive 1999/13/EC into Irish law through the Solvents Regulations (S.I. No 543 of 2002). Following this, the amending Deco-paints Directive 2004/42/EC<sup>3</sup> on the limitations of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products was brought into effect in Ireland through the Limitation of Emissions of Volatile Organic Compounds due to the use of organic solvents in certain paints, vehicles & vehicle refinishing products Regulations 2007 (S.I. No 1999 of 2007).<sup>4</sup>

The Solvents Regulations 2002 and the Deco-Paints Regulations 2007 can be downloaded at:

[Irish Statute Book, Statutory Instruments, S.I. No. 543/2002 — Emissions of Volatile Organic Compounds From Organic Solvents Regulations 2002](#)

<http://www.attorneygeneral.ie/esi/2007/B25195.pdf>

#### 1.4.2 IPPC Licensing:

- A review of all *existing* IPPC licences was completed in preparation of the first report to determine what changes, if any, were needed to bring existing relevant IPPC licences into line with the requirements of the 2002 Regulations.
- A full review of all *potentially relevant* licences was carried out in preparation of this report. The review identified only 3 of existing IPPC licences that remain to be amended to fully reflect the requirements of the Solvents Directive 1999/13/EC.
- Implementation of the requirements of the Solvents Directive 1999/13/EC for 57 *relevant* IPPC installations.

#### 1.4.3 Development of AIC system:

- Development of a unique scheme, the Accredited Inspection Contractor (AIC) scheme, to implement the requirements of the Solvents Directive 1999/13/EC for installations not covered by the Integrated Pollution Prevention & Control (IPPC) Directive 96/6/EC.
- The development of an Application Guidance Standard for this Scheme by the Irish National Accreditation Board (INAB). Operation of this scheme with 235 installations now inspected and registered under this scheme. This is separate to an additional number of

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<sup>3</sup> Herein called the Deco-Paints Directive 2004/42/EC

<sup>4</sup> Herein called the Deco-Paints Regulations 2007

facilities registered under the Irish scheme for vehicle refinishers under the Deco-paints Regulations (S.I. No. 1999 of 2007) .

- The preparation of a National Protocol for AIC Inspections carried out under this scheme. The revision of this Protocol after operational experience.
- The preparation of a plain guide for installations under the AIC scheme. This guide is being revised at present and is due to be released at the end of December 2008.
- The preparation of Best Practice Guidelines for some of the sectors under the legislation which are new to environmental controls – namely dry cleaners, surface cleaning, and original vehicle coating and coating of trailers. These also have been amended to reflect operational experience and to take account of the Deco-paints Regulations 2007. Separate guidance also prepared for vehicle refinishers for repair and decoration under the Deco-paints legislation prepared with public consultation. These Guidelines can be downloaded at:

<http://www.epa.ie/downloads/advice/air/solvents/>

#### **1.4.4 Local Authority enforcement of Certification Activities:**

- A project was completed to identify all suspected non-IPPC installations which could potentially come under the Solvents Directive 1999/13/EC and databases were provided to the Local Authorities who are the competent authorities.
- Development of an enforcement guidance manual by the EPA for Local Authorities on identifying installations falling under the Solvents Directive 1999/13/EC and taking enforcement actions for breaches of the legislation.
- Workshops for all Local Authorities on the requirements of the legislation and enforcement.
- In order to prepare this report a questionnaire survey of all Local Authorities on their implementation of the Solvents Regulations 2002 was carried out during the summer of 2008.
- Local Authorities and the EPA operate Inspection Plans in accordance with the Recommendation for Minimum Criteria for Environmental Inspections (RMCEI 2001/331/EC).

For information on additional work carried out on implementing the RMCEI Recommendation 2001/331/EC before 2005, please see the first report<sup>5</sup>.

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<sup>5</sup> Any reference to “the first report” throughout this document means the first report to the European Commission on the implementation of Directive 1999/13/EC on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain activities and

#### 1.4.5 Guidance/Training for relevant industrial sectors:

- Seminars for dry cleaners and vehicle refinishers on the two sets of Regulations.
- Incorporation of the Solvents Directive 1999/13/EC into BAT documents for IPPC installations.
- National and local radio awareness campaigns were commissioned by the EPA.
- Development of training for dry cleaners through the Dry Cleaning and Laundry Skillnet ([www.dcls.ie](http://www.dcls.ie)). This includes courses and certification dealing with the practical requirements for the implementation of the Solvents Directive 1999/13/EC.
- Websites maintained by the EPA and the Department of the Environment, Heritage and Local Government ([www.epa.ie/whatwedo/advice/air/solvents/](http://www.epa.ie/whatwedo/advice/air/solvents/) and [www.environ.ie/en/Environment/Atmosphere/AirQuality/VolatileOrganicCompounds/](http://www.environ.ie/en/Environment/Atmosphere/AirQuality/VolatileOrganicCompounds/)).

#### 1.5 CONCLUSIONS ON IMPLEMENTATION

The implementation of the IPPC Directive 96/61/EC has for the most part taken the requirements of the Solvents Directive 1999/13/EC into account. The Irish IPPC licensing system includes an additional category not in the IPPC Directive 1996/61/EC for the use of coating materials with a capacity of more than 10 tonnes per annum. There are 54 relevant facilities authorised under IPPC. A full review of all potentially relevant licences identified only 3 of existing IPPC licences that remain to be amended to fully reflect the requirements of the Solvents Directive 1999/13/EC. For these 3 sites the activity is already regulated – the licence just needs some minor amendments to fully reflect the Solvents Directive 1999/13/EC.

In relation to installations authorised under the AIC system, 235 installations have been registered to date. Of these 235, 1 was registered prior to this reporting period.

Of all the 235 registered non-IPPC installations:

- **23** installations have been authorised as new installations.
- **212** installations have been authorised, but are classed as existing activities since they were in operation on 30 June 2003. Of these, 4 were authorised as a result of a substantial change.

Local authorities have been working on identifying activities falling under the Regulations in the period since the first report, in accordance with their risk based inspection plans and using the enforcement powers available to them under the Air Pollution Act 1987 as amended.

This is borne out by the estimates of non-IPPC activities in the first report at 2142 has been reduced to the current status in relation to registered and suspected non-IPPC activities of between 209 – 266. (See question 2 for further details.)

While it is acknowledged that there are non-IPPC installations not yet registered, the working figure of between 209 - 266 suspected installations is expected to be an over-estimate. Local Authorities have given priority to the pursuit of dry cleaning installations since this activity represents the largest in terms of numbers of installations. In addition Local Authorities are in the process of authorising vehicle refinishing installations under the deco-paints legislation.

The fact that the Irish IPPC licensing system includes an additional category not in the IPPC Directive 1996/61/EC for the use of coating materials with a capacity of more than 10 tonnes per annum means that it is only those facilities using between 5 and 10 tonnes that come under the AIC system. To date there are 6 installations registered under the AIC system that are involved in activities other than dry cleaning. The identification process being undertaken by Local Authorities includes 77 site visits carried out to sites other than dry cleaners or vehicle refinishers. It must also be stated that the some Local Authorities are at a more advanced stage than others with respect to this identification process. Continued actions to identify and register remaining suspect installations will be considered via planning and implementation of RMCEI inspection plans.

Feedback from Local Authorities regarding the AIC system is in the main favourable. There have been a small number of comments in relation to variance in AIC report standards, but it is anticipated that the maturation of the system will address these issues particularly through INAB's ongoing accreditation role.

The use of the AIC model could possibly be adapted in future for other areas of local authority enforced legislation. The advantages of the system include implementation of the polluter pays principle, and the optimum utilisation of local authority resources for tackling non-compliant installations.

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## Section 2: Questionnaire

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This section details Ireland's responses to the questions contained in the Commission's questionnaire on implementation of the Solvents Directive 1999/13/EC as set out in Commission Decision 2006/534/EC.

The questions from the Commission's Decision 2006/534/EC are repeated in italics and the responses to each of these are provided underneath.

### **QUESTION 1    GENERAL DESCRIPTION**

*What are the main features of national legislation that are necessary to set up an authorisation or registration system to ensure compliance with the requirements of the Directive? Please, detail changes in national legislation during the reporting period, concerning Directive 1999/13/EC.*

The Emissions of Volatile Organic Compounds from Organic Solvents Regulations 2002 (Statutory Instrument No. 543 of 2002) fully transpose the Solvents Directive 1999/13/EC into Irish law. These Regulations were published on 28<sup>th</sup> November 2002 and entered into force on the 30<sup>th</sup> November 2002.

The main features of this national legislation in relation to the Solvents Directive 1999/13/EC are set out as follows.

#### **For installations which fall under both Solvents Directive 1999/13/EC and the IPPC Directive 1996/61/EC**

The Environmental Protection Agency (EPA) is the competent authority for installations which fall under both the Solvents Directive 1999/13/EC and the Integrated Pollution Prevention & Control (IPPC) Directive 1996/61/EC.

As part of the preparation of the first report, the EPA reviewed all existing IPPC licences to determine what changes, if any, were needed to bring relevant IPPC licences into line with the requirements of the Solvents Regulations 2002. It was found in general that the licensing process had taken account of the Solvents Directive 1999/13/EC for existing licences well in advance of its implementation date. Thus many existing installations had the Solvents Directive's requirements written into licences, to be effective from 31 October 2007. Where necessary, installations applied for and were granted revised licences, or licences were amended.

A full review of all potentially relevant licences carried out as part of the preparation of this report identified only 3 existing IPPC licences that remain to be amended to fully reflect the requirements of the Solvents Directive 1999/13/EC. For these 3 sites the activity is already regulated – the licence just needs some minor amendments to fully reflect the Solvents Directive 1999/13/EC. For example, an existing installation licensed for sheet metal container manufacture has an associated solvents use for painting between 5 and 10 tonnes but the licence does

not reflect any requirements for this. For new or substantially changed installations, the EPA already takes the requirements of the Solvent Regulations 2002 into account when determining an IPPC licence (for more detail see the answer to question 3).

### **For all other installations which fall under Solvents Directive 1999/13/EC**

The Local Authority (County Council or City Council) in whose functional area an installation is located is the competent authority for installations which fall under the Solvents Directive 1999/13/EC but not under the IPPC Directive 1996/61/EC.

Ireland has developed a unique scheme, the Accredited Inspection Contractor (AIC) system, to implement the requirements of both this Solvents Directive 1999/13/EC for installations not covered by the IPPC Directive 1996/61/EC, and for vehicle refinishing activities under the Deco-paints Directive 2004/42/EC. The AIC system ensures implementation of the polluter pays principle while allowing the Local Authorities to focus their efforts on non-compliance and thereby reducing their administrative burden.

The Irish National Accreditation Board (INAB) in cooperation with the EPA and the Department of Environment, Heritage and Local Government (DEHLG) has established a national accreditation programme for Accredited Inspection Contractors under the Emissions of Volatile Organic Compounds from Organic Solvents Regulations 2002 (S.I. No. 543 of 2002) i.e. Solvents Regulations 2002. An AIC requires accreditation from the INAB in accordance with ISO 17020<sup>6</sup> (EN 45004) for the conduct of inspections under the Solvents Regulations 2002. At the time of writing, three organisations have successfully obtained accreditation from INAB and are operating as AICs for both the Solvents Directive 1999/13/EC and the Deco-paints Directive 2004/42/EC. Between them they have carried out 268 inspections under the Solvents Regulations 2002 alone.

Articles 22 through to 29 of the Emissions of Volatile Organic Compounds from Organic Solvents Regulations 2002 (S.I. No. 543 of 2002) implement the AIC system into Irish law.

Under the AIC system an installation must register with their Local Authority and annually obtain a Certificate of Compliance. Obtaining the Certificate of Compliance involves annual submission to the local authority of a report by an AIC. The AIC prepares this report based on an inspection of the installation. The inspection and report by an AIC is at cost to the operator of the installation (in line with the polluter pays principle). This AIC report demonstrates whether an installation is in compliance with the Solvents Regulations 2002 or not. The AIC must be selected from a panel of such contractors established by the INAB.

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<sup>6</sup> ISO 17020 (EN 45004): general criteria for the operation of various types of bodies performing inspection.

Once a Certificate of Compliance is obtained, the installation must operate in accordance with it including any conditions attached to it. Once an installation comes under the Solvents Regulations 2002 it is not permitted to operate without a Certificate of Compliance.

An Environmental Enforcement Network (EEN) is operational consisting of the EPA, Local Authorities and the Department of Environment, Heritage and Local Government (DEHLG) and other state agencies. The aim of the network is to foster co-operation between the various public service bodies involved in the enforcement of environmental legislation, so that a higher and more consistent standard of enforcement is achieved. The EEN has an Air Working Group which has dealt with the implementation of the Solvents Directive 1999/13/EC.

Under this working group, an enforcement guidance manual has been prepared by the EPA. This manual acts as a guide for implementing the Solvents Regulations 2002. It sets out how to identify the installations that fall under the legislation, how the AIC system works, processing AIC reports, and how to meet the public register requirements. It also outlines the enforcement powers available to Local Authorities.

The Solvents Regulations 2002 were made under the Air Pollution Act 1987, as outlined in the preamble to the Regulations. Thus, the statutory powers for the enforcement of the Solvents Regulations 2002 are those under the Air Pollution Act 1987 (No. 6 of 1987) as amended by the Environmental Protection Agency Act 1992 (No. 7 of 1992).

Each Local Authority has drawn up an Inspection Plan based on the Recommendation for Minimum Criteria for Environmental Inspections (RMCEI 2001/331/EC). Inspections under the Solvents Regulations 2002, either carried out by Local Authority personnel, or carried out by an AIC on behalf of the Local Authority, must be completed in accordance with the Inspection Plan. Similarly the EPA operates an Inspection Plan in accordance with RMCEI for its IPPC licensed activities.

### **Information on the AIC System from INAB**

The Irish National Accreditation Body (INAB) as part of the European Co-operation for Accreditation (EA) offers regulatory bodies a framework for conformity assessment at national level. INAB ensures effective use of accreditation in particular, for demonstrating conformity to the requirements of European Directives and Regulations. The European Commission acknowledges the usefulness of conformity assessment via accreditation by an Accreditation Body (AB) such as INAB as being an appropriate and efficient regulatory model.

Accreditation by INAB means that an AIC is assessed against internationally recognised standards to demonstrate their competence, impartiality and performance capability. ISO 17020 is a general standard for accreditation of any type of inspection body. Each application of ISO 17020 requires separate guidance to be prepared on the interpretation of ISO 17020 for that particular application and setting specific

requirements. AICs are assessed against this Application Guidance Standard by INAB when applying for accreditation as an AIC.

The accreditation process for prospective AICs includes INAB witnessing audits conducted by the applicant AIC inspectors at scheduled installations and assessing their competence. The performance of the applicant AIC during this audit activity, together with extensive documentation assessments, provides the necessary information INAB needs to decide if accreditation should be awarded.

In July 2006, INAB received the first application for accreditation.

This organisation was awarded accreditation in December 2006. By June 2007 a further two Inspection Bodies were similarly accredited.

All three accredited organisations were further awarded an extension to the scope of accreditation in January 2008 to include the Deco-Paints Regulations 2007.

Since the initial award of accreditation all three inspection bodies have now undergone annual assessments including witnessed AIC inspections confirming on-going competence.

Further information on the INAB accreditation process can be found at [www.inab.ie/schemes/aib/index.html](http://www.inab.ie/schemes/aib/index.html)

Further information on the list of current AICs can be found at [www.inab.ie/schemes/aib/aic/directory.html](http://www.inab.ie/schemes/aib/aic/directory.html)

### **Changes in national legislation during the reporting period**

There was one new item of national legislation during the reporting period of 1 January 2005 to 31 December 2007 concerning the Solvents Directive 1999/13/EC. This was the transposition into Irish law of the Deco-Paints Directive 2004/42/EC, the amendment to the Solvents Directive 1999/13/EC regarding deco-paints. This was implemented via the Deco-Paints Regulations 2007 (S.I. No. 199 of 2007) published on the 3<sup>rd</sup> May 2007.

This Deco Paints Directive 2004/42/EC amends the definition of 'vehicle refinishing', by deleting the indent:

'— the coating of road vehicles as defined in Directive 70/156/EEC, or part of them, carried out as part of vehicle repair, conservation or decoration outside of manufacturing installations, or'.

Thus the Solvents Directive 1999/13/EC now only applies to: the original coating of road vehicles as defined in Directive 70/156/EEC or part of them with refinishing-type materials, where this is carried out away from the original manufacturing line, or the coating of trailers including semi-trailers category O.

Article 13 (2) to Directive 2004/42/EC states that 'Member States may maintain or introduce national measures for the control of emissions from

vehicle-refinishing activities deleted from the scope of Solvents Directive 1999/13/EC'.

Ireland has chosen to introduce measures to control emissions from vehicle refinishing activities and has included this in the Deco-Paints Regulations 2007. In accordance with article 5(4) of these Regulations the EPA has published best practice guidelines for vehicle refinishing installations, which have been approved by the Minister for the Environment, Heritage and Local Government. The requirements set out under Part 1 of this document are mandatory for installations carrying out vehicle refinishing for repair, decoration or conservation. These requirements form the basis for the independent AIC inspections which vehicle refinishing installation operators must commission and submit to their local authority for approval.

These were prepared with public consultation, involving operators, the AICS, SIMI (Society for the Irish Motor Industry), and DEHLG. A mailshot of all potentially relevant installations outlining the new requirements (767 letters sent) together with an invitation to a seminar on the Deco-Paints Regulations 2007 was carried out. This seminar outlined the practical requirements for operators under the scheme and was well attended. It included a presentation from the industry association SIMI who provided a positive response to the new requirements for vehicle refinishers.

The Best Practice Guidelines are downloadable from the EPA's solvents web-page:

[www.epa.ie/downloads/advice/air/deco%20paints/](http://www.epa.ie/downloads/advice/air/deco%20paints/)

The AIC scheme for the Deco-paints Regulations 2007 operates similar to that for the Solvents Directive 1999/13/EC. The one major difference is that vehicle refinishing for repair and decoration activities under the Deco-paints Directive 2004/42/EC only require inspection and certification once every 2 years.

## **QUESTION 2    COVERAGE OF INSTALLATIONS**

*For each of the twenty sections of Annex II A, please estimate how many installations fall into the categories set out below (Member States with a different sector classification in their national legislation may use it in terms of answering this question):*

- *all existing installations, encompassed by Article 2(2) of the Directive, at the end of the reporting period;*
- *all installations which were registered or authorised by the competent authority during the reporting period;*
- *of the installations referred to in the previous indent, how many were authorised or registered pursuant to Article 4(4) of the Directive? (optional);*

- *how many of these installations are also covered by the IPPC Directive? (optional).*

The Tables on pages 13-14 below summarise the information required for this question. As noted in the Entec report<sup>7</sup>, for clarity this question could be amended to ask for the number of installations registered in the reporting period, and the *total* number of registered installations. Therefore, for the purposes of clarity, both figures have been provided.

In relation to installations authorised under the IPPC system:

- **3** installations have been authorised as new installations during the period.
- **10** existing installations have been re-authorised during the period as a result of a substantial change. These are classed as existing activities since they were in operation on 30 June 2003. It should be noted, that of these companies, 2 have closed in 2008.
- **1** existing company had applied for a licence during the period for a substantial change but was not authorised until during 2008.
- **58** relevant installations have been authorised prior to this reporting period, but only **41** of these were still operational on 3 December 2007. This is because **5** installations ceased production during the reporting period, and another **12** installations are still operational but below the consumption thresholds.

In relation to installations authorised under the AIC system, 235 installations have been registered to date. Of these 235, 1 was registered prior to this reporting period.

Of all the 235 registered non-IPPC installations:

- **23** installations have been authorised as new installations.
- **212** installations have been authorised, but are classed as existing activities since they were in operation on 30 June 2003. Of these, 4 were authorised as a result of a substantial change.

It is noted that, based on the data available, not all of the existing non-IPPC installations have been registered. These installations are being pursued by Local Authorities in accordance with their risk based inspection plans and using the enforcement powers available to them under the Air Pollution Act 1987 as amended.

There is a degree of uncertainty associated with the figures for estimated installations not yet registered. Some comments on this are as follows:

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<sup>7</sup> European Commission, DG Environment, Analysis of the reports submitted by Member States on the implementation of Directive 1999/13/EC in 2003/2004, Final Report, December 2006 Entec UK Limited.

- The Local Authority estimate of 84 un-registered surface cleaning installations (activities 4 and 5) is particularly uncertain. It is considered that this number could in fact be much lower, perhaps of the order of 35 installations. Thus a range of 35 to 84 is provided, albeit this is considered highly uncertain. Three installations above the thresholds have been identified to date and authorised. It should be noted that this is a particularly difficult sector in which to identify installations.
- For dry cleaning installations, the number for un-registered dry cleaners is more robust, albeit still subject to a degree of uncertainty. The number of un-registered dry cleaners is estimated to fall within a range of 109 to 116 installations, bringing the total estimated number of dry cleaning installations (registered and unregistered) to lie between 338 to 345 installations.

It should be noted that much work in identifying activities falling under the Regulations has been carried out by Local Authorities through monitoring and inspections in the period since the first report. This is borne out by the following table, which illustrates the estimates of non-IPPC activities in the first report, and the current status in relation to registered and suspected non-IPPC activities. Due to the work of Local Authorities in identifying these activities the numbers have reduced greatly and are expected to fall further. Please see the answer to question 8 for further detail.

There has been a degree of disparity among Local Authorities in the implementation of the Solvents Regulations 2002. Many Local Authorities have authorised all, or almost all, installations in their area. Many Local Authorities are pursuing non-registered installations using the enforcement powers available to them such as warning letters and notices and in some cases have made recommendations for prosecution.

<b>Comparison between estimates for first report (2005) and this report</b>		<b>2005 Report Non-IPPC installations - suspected &amp; authorised (only 1 authorised at the time)</b>	<b>This report Non-IPPC installations - suspected and authorised</b>
5	Other surface cleaning (> 2)	700	37 to 87
8	Other coating, including metal, plastic, textile, fabric, film and paper coating (> 5)	100	22
9	Winding wire coating (> 5)	20	3
11	Dry cleaning	812	338 to 345
12	Wood Impregnation (> 25)	70	0
13	Coating of leather (> 10)	0	0
14	Footwear manufacture (> 5)	10	2
15	Wood and plastic lamination (> 5)	300	29
16	Adhesive coating (> 5)	60	9
17	Manufacture of coating preparations, varnishes, inks and adhesives (> 100)	10	0
18	Rubber conversion (> 15)	20	0
19	Vegetable oil and animal fat extraction and vegetable oil refining activities (> 10)	5	0
20	Manufacturing of pharmaceutical products (> 50)	35	4

<b>ALL INSTALLATIONS (IPPC and AIC)</b>											
		No. of existing installations on 31 Dec 2007:				No. of installations:					Total registered/authorised
		existing installations also covered by IPPC licensing	Non-IPPC existing installations (suspected** and authorised)		Total existing installations	registered/authorised prior to the reporting period	registered/authorised in the reporting period	registered/authorised in the reporting period as a result of a substantial change	registered/authorised in the reporting period & also covered by the IPPC Directive	Sites that have ceased operation since previous report	
1	Heatset web offset printing (> 15)	2	0	2	3	2	2	2	0	1	4
2	Publication rotogravure (> 25)	0	0	0	0	0	0	0	0	0	0
3	Other rotogravure, flexography, rotary screen printing, laminating or varnishing units (> 15) rotary screen printing on textile/cardboard (> 30)	5	0	5	7	0	0	0	0	2	5
4	Surface cleaning using compounds specified in Articles 5(6) and (8) (>1)	2	0	2	1	1	0	1	0	1	1
5	Other surface cleaning (> 2)	6	37 to 87	43 to 93	7	7	1	4	0	0	14
6	Vehicle coating (< 15) and vehicle refinishing	0	0	0	0	0	0	0	0	0	0
7	Coil coating (> 25)	0	0	0	0	0	0	0	0	0	0
8	Other coating, including metal, plastic, textile, fabric, film and paper coating (> 5)	22	22	44	25	10	1	7	5	2	28
9	Winding wire coating (> 5)	0	3	3	0	0	0	0	0	0	0
10	Coating of wooden surfaces (> 15)	1	0	1	4	0	0	0	0	3	1
11	Dry cleaning	0	315 to 322	315 to 322	1	228	4	0	0	0	229
12	Wood impregnation (> 25)	2	0	2	2	1	0	1	0	1	2
13	Coating of leather (> 10)	0	0	0	0	0	0	0	0	0	0
14	Footwear manufacture (> 5)	0	2	2	0	0	0	0	0	0	0
15	Wood and plastic lamination (> 5)	2	29	31	2	1	0	1	0	0	3
16	Adhesive coating (> 5)	4	9	13	0	0	0	0	0	0	0
17	Manufacture of coating preparations, varnishes, inks and adhesives (> 100)	14	0	14	16	1	1	1	0	0	17
18	Rubber conversion (> 15)	1	0	1	0	0	0	0	0	0	0
19	Vegetable oil and animal fat extraction and vegetable oil refining activities (> 10)	0	0	0	0	0	0	0	0	0	0
20	Manufacturing of pharmaceutical products (> 50)	6	4	10	9	3	2	3	0	2	10
<b>TOTAL*</b>		<b>54</b>	<b>421 to 478</b>	<b>475 to 532</b>	<b>59</b>	<b>250</b>	<b>11</b>	<b>16</b>	<b>5</b>	<b>12</b>	<b>292</b>

\* For IPPC, the total number of installations is not always the sum of the installations for individual activities, since some installations carry out more than one activity.

\*\* The non-IPPC suspected activity figures, which form part of these figures, are anticipated to be an over-estimate since not all local authorities have completed the process of identifying all potential installations and getting them registered. Where this work has been carried out, it has been found that original estimates far exceeded the actual number of installations that fall under the Directive.

<b>IPPC ONLY</b>		No. of existing installations on 31 Dec 2007:	No. of installations registered/authorised:			Since previous report:		Total registered/authorised and operational as at 31 December 2007
			existing installations also covered by IPPC licensing	prior to the reporting period	during the reporting period	in the reporting period as a result of a substantial change:	Sites that have ceased operation	
1	Heatset web offset printing (> 15)	2	3	2	2		1	4
2	Publication rotogravure (> 25)	0	0	0	0			0
3	Other rotogravure, flexography, rotary screen printing, laminating or varnishing units (> 15) rotary screen printing on textile/cardboard (> 30)	5	7	0	0		2	5
4	Surface cleaning using compounds specified in Articles 5(6) and (8) (>1)	2	1	1	0		1	1
5	Other surface cleaning (> 2)	6	7	4	1			11
6	Vehicle coating (< 15) and vehicle refinishing	0	0	0	0			0
7	Coil coating (> 25)	0	0	0	0			0
8	Other coating, including metal, plastic, textile, fabric, film and paper coating (> 5)	22	25	7	1	5	2	25
9	Winding wire coating (> 5)	0	0	0	0			0
10	Coating of wooden surfaces (> 15)	1	4	0	0		3	1
11	Dry cleaning		0					
12	Wood impregnation (> 25)	2	2	1	0		1	2
13	Coating of leather (> 10)	0	0	0	0			0
14	Footwear manufacture (> 5)	0	0	0	0			0
15	Wood and plastic lamination (> 5)	2	2	1	0			3
16	Adhesive coating (> 5)	4	0	0	0			0
17	Manufacture of coating preparations, varnishes, inks and adhesives (> 100)	14	16	1	1			17
18	Rubber conversion (> 15)	1	0	0	0			0
19	Vegetable oil and animal fat extraction and vegetable oil refining activities (> 10)	0	0	0	0			0
20	Manufacturing of pharmaceutical products (> 50)	6	9	3	2		2	10
<b>Total installations*</b>		<b>54</b>	<b>58</b>	<b>16</b>	<b>7</b>	<b>5</b>	<b>12</b>	<b>57</b>

\* For IPPC, the total number of installations is not always the sum of the installations for individual activities, since some installations carry out more than one activity.

Note: 2 of the 57 authorised facilities as at 31 December 2007 have closed in 2008.

**Accredited Inspection contractor (AIC) System Installations ONLY**

	No. of Non-IPPC existing installations on 31 Dec 2007:				No. of installations:		Of those installations registered/authorised:		Total registered/authorised	Total (registered/authorised & suspected but not yet registered)
	Total Suspected but not yet registered*	Total registered existing installations	Total existing installations (suspected plus registered)		registered/authorised prior to the reporting period	existing installations registered/authorised since the reporting period	those that are as a result of a substantial change	those that are new** installations		
1 Heatset web offset printing (> 15)										
2 Publication rotogravure (> 25)										
3 Other rotogravure, flexography, rotary screen printing, laminating or varnishing units (> 15) rotary screen printing on textile/cardboard (> 30)										
4 Surface cleaning using compounds specified in Articles 5(6) and (8) (>1)										
5 Other surface cleaning (> 2)	34 to 84	3	37 to 87		3			3	37 to 87	
6 Vehicle coating (< 15) and vehicle refinishing										
7 Coil coating (> 25)										
8 Other coating, including metal, plastic, textile, fabric, film and paper coating (> 5)	19	3	22		3			3	22	
9 Winding wire coating (> 5)	3		3						3	
10 Coating of wooden surfaces (> 15)										
11 Dry cleaning	109 to 116	206	315 to 322		1	228	4	23	229	338 to 345
12 Wood impregnation (> 25)										
13 Coating of leather (> 10)										
14 Footwear manufacture (> 5)	2		2							2
15 Wood and plastic lamination (> 5)	29		29							29
16 Adhesive coating (> 5)	9		9							9
17 Manufacture of coating preparations, varnishes, inks and adhesives (> 100)										
18 Rubber conversion (> 15)										
19 Vegetable oil and animal fat extraction and vegetable oil refining activities (> 10)										
20 Manufacturing of pharmaceutical products (> 50)	4		4							4
<b>TOTAL</b>	<b>209 to 266</b>	<b>212</b>	<b>421 to 478</b>		<b>1</b>	<b>234</b>	<b>4</b>	<b>23</b>	<b>235</b>	<b>444 to 501</b>

\* These figures are anticipated to be an over-estimate since not all local authorities have completed the process of identifying all potential installations and getting them registered. Where this work has been carried out, it has been found that original estimates far exceeded the actual number of installations that fall under the Directive.

\*\* As encompassed by Article 2(2) which sets out the definition of an existing installation. As a result of Ireland's later implementation date, the definition of an "existing installation" in the Irish Regulations differs from the Directive: an "existing installation" means "an installation in operation on or before 30 June 2003", while a "new installation" means an installation which is put into operation on or after 1 July 2003.

### QUESTION 3 BASIC OPERATOR OBLIGATIONS

*What administrative provisions in general terms have been put into place to allow the competent authorities to ensure that installations operate in accordance with the general principles set out in Article 5?*

All of the general principles set out in Article 5 to the Solvents Directive 1999/13/EC have been incorporated into the Emissions of Volatile Organic Compounds from Organic Solvents Regulations 2002 (S.I. No. 543 of 2002) as set out in Articles 7, 8, 9, 10, 11, 12, 13, 14, and 15 to the Regulations.

#### IPPC Installations

For IPPC installations, the EPA has prepared a *BAT Guidance Note on Best Available Techniques for Solvent Use* which has taken the waste gas emission limit values directly from Solvents Directive 1999/13/EC for each of the relevant activities, including provisions for emission limit values for VOCs with specified risk phrases above stated mass flow emissions (as per Articles 5(7) and 5(8) to the Directive), and emission limit values for existing facilities using existing equipment (as per Article 5(11) to the Directive). The activities covered by this BAT Guidance Note are activities nos. 4, 5, 6, 7, 8, 9, 10, 13, 16 of Annex II A to the Directive above the IPPC threshold.

Similarly, further BAT Guidance Notes have been prepared which give regard to the requirements of Solvents Directive 1999/13/EC, such as the *BAT Guidance Note for the Pharmaceutical Sector* which include provisions for pharmaceutical manufacturing, and the *BAT Guidance Note for the Organic Chemical Sector* which include provisions for manufacture of coating preparations, varnishes, inks and adhesives.

Copies of these BAT Guidance Notes are available at:

[www.epa.ie/downloads/advice/bat/](http://www.epa.ie/downloads/advice/bat/)

For installations that fall under the IPPC Directive 1996/61/EC, any new/substantially changed installation must apply for an IPPC licence/revised IPPC licence. Section *E.1.A. Details of all point emissions to atmosphere* of the IPPC Application Form requires the operator to assess all emissions to atmosphere against the BAT guidance limit. For emissions outside the BAT guidance limit, a planned programme of improvement towards meeting upgraded standards is required. Section *E.1.B. of the IPPC Application Form (Fugitive and Potential emissions)* requires the operator to specify the relevant category of activity under Solvents Directive 1999/13/EC and to specify how the requirements in relation to fugitive emissions will be met.

A review of all existing IPPC licences was undertaken to determine what changes, if any, were needed to bring existing relevant IPPC licences into line with the requirements of the Solvents Regulations 2002.

## Examples of Measures Taken to ensure compliance with the Solvents Directive 1999/13/EC

While Ireland implements the general principles in Article 5 through general binding rules, i.e. the 2002 Solvent Regulations as outlined above, authorisations granted in the form of IPPC licences repeat these requirements in the form of licence conditions.

**Figure 1: Examples of IPPC licences incorporating Solvents Directive requirements**

Company Name	IPPC Licence No	Example from Licence conditions
AHP Manufacturing B.V. Trading As Wyeth Medica Ireland	P0153-05	The following extract shows that for a substantially changed existing facility, the expansion was treated as a new activity, while the rest of the site was treated as existing:  "Total emissions to air of volatile organic compounds shall be reduced to meet the following limits:  (i) Newbridge III process Building 3B: no more than 5% of the total solvent input from the date of commencement of the activity in this building.  (ii) All other existing process buildings: no more than 15% of total solvent input no later than 1st October 2007."
Boston Scientific Ireland Limited	P0725-01	Fugitive emissions to air of volatile organic compounds shall be reduced to meet the following limits subject to Condition 4 of this licence no later than 31st October 2007:  (i) 20% of total solvent input, where solvent consumption is greater than 15 tonnes per year, or  (ii) 25% of total solvent input, where solvent consumption is greater than 5 tonnes per year but less than 15 tonnes per year.
Braun Oral B Ireland Ltd.	P0297-02	"Fugitive emissions to air of volatile organic compounds shall be reduced to no more than 20% of total solvent input no later than 1st October 2007."

## Non-IPPC Installations

For non-IPPC installations which come under the Accredited Inspection Contractor (AIC) system, the EPA commissioned the preparation of a *National Protocol for the Implementation of a Reporting Mechanism in line with the requirements of S.I. 543 of 2002*.

The Protocol is downloadable from the EPA's solvents web-page: [www.epa.ie/downloads/advice/air/solvents/](http://www.epa.ie/downloads/advice/air/solvents/).

On foot of operational experience and as a result of the implementation into law of the Deco-paints Regulations 2007, the Protocol has been revised. Consultation with AICs was also taken into account.

This protocol prescribes a procedure for assessing installations against all of the general principles set out in Article 5 to the Solvents Directive 1999/13/EC. The Protocol also now contains a separate report template

for dry cleaning, as well as a standard template which covers all other non-IPPC activities under the Solvents Regulations 2002. The report template records how an installation performs relative to the Solvents Directive's 1999/13/EC requirements as determined by AIC inspections. A similar inspection Protocol is used for the Deco-paints Regulations 2007.

The Irish National Accreditation Board's (INAB) *Application Guidance Standard on the application of ISO 17020:1998 by an Accredited Inspection Contractor (AIC) when conducting Inspections for the Emissions of Volatile Organic Compounds from Organic Solvents* ([www.inab.ie/pdf/INAB-IB-G1.pdf](http://www.inab.ie/pdf/INAB-IB-G1.pdf)) explicitly requires AICs to use this protocol during inspections of installations. AICs are assessed against this Application Guidance Standard when applying to INAB for accreditation as an AIC.

A series of Best Practice Guidelines for some of the activities under the Solvents Directive 1999/13/EC have been prepared on behalf of the EPA including dry cleaning, original vehicle coating with refinishing type materials and coating of trailers, surface cleaning using specified risk phrases solvents, and other surface cleaning. All of these incorporate the requirements of Article 5 to the Solvents Directive 1999/13/EC. These are available at

[www.epa.ie/downloads/advice/air/solvents/](http://www.epa.ie/downloads/advice/air/solvents/).

These Best Practice Guidelines have been updated since the last report based on operational experience and as a result of the implementation into law of the Deco-paints Regulations 2007. Best Practice Guidelines set out the requirements under the Regulations in relation to the sector, including solvent management plans tailored for the particular sector, as well as providing information on best practices to prevent, reduce, treat and dispose of wastes and emissions from such activities. Details on the updates are as follows:

- Best Practice Guidelines for dry cleaning: This update of the Guidelines included qualification on first inspection records requirements; clarification as to what is required to demonstrate compliance with the Regulations prior to commencing a new dry cleaning installation; clarification as to what a substantial change might consist of for this sector (based on European Commission guidance); and the section of the guidelines dealing with non-mandatory requirements has been updated to reflect available "excellent practices".
- Best Practice Guidelines for original vehicle coating and coating of trailers: updated to reflect the changes as a result of the Deco-paints Regulations 2007.
- Best Practice Guidelines for surface cleaning using specified risk phrases solvents and other surface cleaning: minor changes to reflect latest available "excellent practices".

During inspection, the AIC determines if the installation is in compliance with the requirements of the Solvents Regulations 2002, which includes comparison against the relevant parts of Article 5 to the Solvents Directive 1999/13/EC, and records the process using the documentation outlined above. A copy of the AIC report is given to the operator of the installation. The operator then submits this AIC report to the local authority. If the local authority is satisfied that the operator meets the requirements of the Regulations based on the AIC report, it issues the operator with a Certificate of Compliance.

A Certificate of Compliance states that the operator complies with the requirements of the Solvents Regulations 2002, which as outlined above incorporate the general principles set out in Article 5. However, Certificates of Compliance granted to installations can include such conditions which the local authority considers necessary to ensure compliance. These are usually in response to any minor non-compliances or observations recorded by the AIC in the report.

A plain guide for installations under the AIC scheme has been updated to reflect the exclusion of installations carrying out vehicle refinishing for repair or decoration.

### **Examples of Measures Taken to ensure compliance with the Directive**

In addition to earlier seminars as detailed in the first report, the following have since taken place:

- Workshop in June 2007 for Local Authorities. This provided information on the requirements of the Solvents Regulations 2002, how the AIC system operates, the guidance documents available, and the review of these documents that was undertaken. In particular it aimed to help Local Authorities identify in a practical way the installations that fall under the Solvents Regulations 2002 in their functional area.
- Workshop in September 2007 for vehicle refinishers under the Deco-paints legislation.
- Workshop in May 2008 for Local Authorities. This covered the new vehicle refinishing requirements as well as recapping on the Solvents Directive 1999/13/EC implementation requirements for Local Authorities. The EEN Guidance manual for Local Authorities was also presented.

For non-IPPC installations, the Certificate of Compliance just summarily states that the operator complies with the requirements of the Solvents Regulations 2002, which as outlined above includes Article 5's general principles. However, Certificates of Compliance granted to installations can include such conditions that the local authority considers necessary to ensure compliance. These are often pertaining to the solvent

management plan as well as issues relating to solvents such as containment, training, etc. Some examples of these conditions that have been included in Certificates are as follows.

**Figure 2: Examples of conditions that have been inserted by Local Authorities into Certificates of Compliance for non-IPPC installations**

Maintain records of waste drums to include weight, opening and closing stocks.
Waste/Separator water to be tested for Perc [sic: perchloroethylene] content
Records shall be maintained on site of all solvent inputs
Minor non-Compliances to be cleared within 2 months from the date of Certificate.
All suspected and actual incidents from equipment on site must be fully investigated and recorded.
An equipment maintenance programme must be established for relevant equipment and maintenance records must be kept.
Perform training of all staff on Solvent Regulation procedures

The EPA commissioned a survey of all city and county councils, who are the competent authorities for non-IPPC installations, on their implementation of the Solvents Directive 1999/13/EC. This survey questionnaire is attached in Appendix 1. This questionnaire included all the necessary information required for the preparation of this questionnaire report to the Commission. The results of the survey were utilised in compiling the responses to this questionnaire report.

#### **QUESTION 4 EXISTING INSTALLATIONS**

*How many existing installations are authorised or registered as using the reduction scheme of Annex IIB, according to Article 4(3)?*

Three existing installations sought the use of the reduction scheme of Annex IIB and have been authorised to do so. These installations fall under the activity no. 8 other coating. Two are AIC activities since both are below the Irish IPPC solvent consumption threshold of 10 tpa and 1 installation is an IPPC activity since it is above this threshold.

The expectation as outlined in the first report<sup>8</sup> was that a large number of the installations under activity no. 6 vehicle refinishing would utilise the

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<sup>8</sup> Report on the implementation of Directive 1999/13/EC on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain activities and installations in Ireland for the reporting period: 1 January 2003 – 31 December 2004 in accordance with the questionnaire for Member States contained in Commission Decision 2002/529/EC, EPA, September 2005. Available at [www.epa.ie/downloads/pubs/air/solvents/name.13063.en.html](http://www.epa.ie/downloads/pubs/air/solvents/name.13063.en.html).

reduction scheme. However, this expectation has since been superseded by the amendment of the activity no. 6 definition under the Deco-paints Directive 2004/42/EC to exclude vehicle refinishing for repair, conservation or decoration.

Prior to this, a number (49) of vehicle refinishing installations did initially register as required notifying the local authority that they planned to use the reduction scheme. However, this intent became redundant when Ireland implemented national measures for the control of emissions from vehicle-refinishing activities as allowed for under the amending Directive 2004/42/EC. This resulted in the application of the AIC scheme developed for the Solvents Regulations 2002 to all installations carrying out vehicle refinishing for repair decoration or conservation, regardless of solvent consumption, under the Deco-Paints Regulations 2007. The inspection and reporting is required on a biennial basis.

## **QUESTION 5 ALL INSTALLATIONS**

*5.1 Following Article 5(3a), Member States shall report to the Commission on the derogation concerning the application of fugitive emission limit values.*

- *Has there been any derogation? Yes/No*

No, there have been no derogations granted in the reporting period 2005 to 2007 from the application of fugitive emission limit values as per Article 5(3a).

- *In these cases, how is it demonstrated that for the individual installation concerned this value was not technically and economically feasible?*
- *How is it taken into account that significant risks to human health or the environment are not to be expected?*

The above two questions are not applicable since no derogations have been granted in the reporting period.

*5.2 Following Article 5(3b), activities which cannot be operated under contained conditions may be exempted from the controls of Annex II A, when this possibility is explicitly mentioned in that Annex.*

- *How many operators have used this possibility and for how many installations?*

Three operators have used this possibility. All three of these IPPC installations granted such derogations are under the activity "other coating", specifically all are in the aerospace sector. Two of these are

existing installations with licences granted in 2005 (Shannon Aerospace Ltd. Licence no. P0069-02 and Lufthansa Technik Painting Shannon Ltd. licence no. P0497-02). The third licence for a new installation was granted in September 2006 (SR Technics Ireland Ltd licence no. PO- P0480-02).

- *How is it demonstrated that the reduction scheme of Annex II B is not technically and economically feasible?*

As part of the licence review process sites were required to demonstrate in the application documentation that the reduction scheme of Annex II B is not technically and economically feasible. This was then assessed by the EPA as part of the licensing process.

For example, for one site a feasibility study on VOC abatement in the paint hanger was carried out. The capital cost of upgrading (€2.1 million) and operating cost (activated carbon disposal - approximately €84,000 per month) together with the physical size of the hangers, volume of airflow and short periods of painting made this option uneconomic. Thus the abatement option was not feasible.

In terms of the reduction scheme not being technically or economically feasible, areas representing the best opportunities for achieving solvent emissions reduction were identified and implemented at the site. Due to significant VOC reductions at the installation the Solvents Directive 1999/13/EC target for 2005 was achieved but the 2007 target was deemed to not be attainable due to restrictions in relation to compliance with customer requirements for paint type used and the changeover to new products involving manufacturer's approval (e.g. Boeing and Airbus).

In all 3 cases the EPA concluded that the reduction scheme was not technically and economically feasible. However, the IPPC licences for all three sites still contain waste gas emission limit values, albeit at levels which are less strict than the Solvents Directive 1999/13/EC. Emission limit values are set as part of the licensing process to ensure that all relevant ambient air quality standards are not exceeded. The licences also require the identification, monitoring and reduction of fugitive emissions to air.

- *How does the operator demonstrate for the respective installations that the best available technique is being used?*

As part of the licence review process sites were required to demonstrate in the application documentation that BAT was being used. This was then assessed by the EPA as part of the licensing process. For example for one of the sites, the EPA concluded that BAT measures were in use such as incorporating the painting programme into the environmental management programme, moving to the partial use of lower VOC and water based products, minimisation of chemical stripping of airframes, and use of HVLP paint guns.

In general terms, for non-IPPC installations, the National Protocol for the Implementation of a Reporting Mechanism in line with the requirements of S.I. 543 of 2002 includes a requirement where an operator of an

installation seeks a derogation for activities which cannot be operated under contained conditions to prepare a report from a competent independent consultant which sets out the reasons why an exemption should be granted. This report must demonstrate to the satisfaction of the AIC inspector that the requirements of the emission limit values (ELVs) in Annex II A and the reduction scheme in Annex II B to the Directive are not technically and economically feasible, and that the best available technique is being used at the installation. The Protocol requires the AIC inspector to recommend to the local authority whether this exemption be granted or not. This has not been used since to date no sites have sought derogations under the AIC scheme.

## **QUESTION 6 NATIONAL PLANS**

- 6.1 *Has the Member State decided to define and implement a National Plan according to Article 6 (see commission Decision 2001/541/EC of 6 September 2000 on criteria for assessing national plans according to Article 6 of Council Directive 1999/13/EC)?*
- 6.2 *How many installations have been included under the national plan? What is the emission reduction target, which the plan will deliver? What is the current overall emission for the installations covered by the plan? How does this compare with any interim reduction target falling within this reporting period?*

Ireland has not implemented a National Plan according to Article 6, but has instead implemented the Solvents Directive 1999/13/EC by requiring individual installations to be registered and authorised and to meet the various requirements of the Directive as set out in the Emissions of Volatile Organic Compounds from Organic Solvents Regulations 2002 (S.I. No. 543 of 2002). Therefore, this question is not applicable.

## **QUESTION 7 SUBSTITUTION**

*Following the provision of guidance by the Commission according to Article 7(1), to what extent has this been taken into account for the authorisation and formulation of general binding rules (see Article 7(2))?*

Articles 23(1) and 20(1)(b) of the Emissions of Volatile Organic Compounds from Organic Solvents Regulations 2002 (S.I. No. 543 of 2002) explicitly refer to guidance from the Commission according to Article 7(1). These articles require operators to show how they have taken into account any such guidance and require Accredited Inspection Contractors and the EPA to take account of such guidance in the discharge of their respective functions.

The National Protocol for the Implementation of a Reporting Mechanism in line with the requirements of S.I. 543 of 2002 requires the operator to refer to measures recommended by the European Commission in relation to solvent substitution.

The Commission has established a website where a series of guidelines, case studies and tools from various member states are downloadable and links to relevant websites are provided

([ec.europa.eu/environment/air/pollutants/stationary/solvents/guidance\\_en.htm](http://ec.europa.eu/environment/air/pollutants/stationary/solvents/guidance_en.htm)).

An extract from an IPPC licence revised during the reporting period shows that the requirement for substitution of solvents with the risk phrases specified in the Directive is being incorporated into IPPC licences.

*Table: Example of a requirement for substitution of solvents contained in an IPPC licence for an existing installation which has undergone a substantial change*

Shannon Aerospace Ltd (licence no P0069-02):

5.3 Substances or preparations which because of their content of VOC's are classified as carcinogens, mutagens or toxic to reproduction under Directive 67/548/EEC or need to carry the risk phrases R45, R46, R49, R60 and R61, shall be replaced as far as possible by less harmful substances or preparations in the shortest possible time.

Guidance on replacement given in Council Directive 1999/13/EC should be observed.

## QUESTION 8 MONITORING

8.1 *In relation to Article 8(1), in the case where a Member State has introduced an annual reporting obligation for the operator to supply the competent authority with data for the purposes of verifying compliance with the Directive, please state how many operators have not supplied the competent authority with the necessary data and for how many installations?*

Ireland has implemented an annual reporting obligation for all installations.

Under the **IPPC** system, the 57 relevant installations on 31 December 2007 break down as follows:

- **3** relevant installations have been authorised as new or substantially changed installations during the period. **One** of these installations has submitted AERs for the appropriate years. Two companies have not reported yet (licensed in April and August 2007).
- **1** existing company had applied for a licence during the period for a substantial change but was not authorised until during 2008. The company has submitted AERs for all years.
- **2** existing installations have been authorised during the period and both have submitted AERs for the appropriate years.

- **10** relevant installations have been re-authorized during the period, and are classed as existing activities since they were in operation on 30 June 2003. In some cases the review was to implement the requirements of the Solvents Directive 1999/13/EC. **8** of the 10 installations have submitted AERs for the appropriate years. It should be noted, that of these companies, 2 have closed in 2008. One of these companies with incomplete reporting is one of the closed companies.
- **58** relevant installations have been authorized prior to this reporting period, but only **41** of these were still operational on 3 December 2007. This is because **5** installations ceased production during the reporting period, and another **12** installations are still operational but below the consumption thresholds. **36** of the 41 remaining relevant installations have submitted AERs for the appropriate years.

For **non-IPPC** installations which come under the Accredited Inspection Contractor (AIC) system annual reporting is through the submission of the AIC inspection and report to the competent authority. For installations which come under the IPPC system, reporting is through the submission of the licensee's Annual Environmental Report (AER).

Under the AIC system

- **Of the 235** authorized installations (234 authorized in the reporting period):
  - **1** installation was authorized prior to this reporting period. This installation has submitted its 4 annual AIC reports since registering.
  - **23** installations have been authorized as new during the period. **All** of the installations have submitted AIC reports as required.
  - **211** installations have been authorized as existing installations during the period. Of these, 4 were authorized as a result of a substantial change. **All** of the installations have submitted AIC reports as required. There are **no** installations that have overdue AIC reports apart from those that are not in compliance (see question 9).
- It is estimated that there are between 209 - 266 suspected installations that remain to be validated and authorized. However there is uncertainty about these figures, and they are considered to be an overestimate. See notes below under measures taken.

*What measures are taken by the competent authority to ensure that this information is supplied within the shortest possible time?*

For installations which come under **IPPC**, all licensees are required to submit their AER by the 31<sup>st</sup> March for the previous calendar year. The EPA's Office of Environmental Enforcement acts to ensure licences as issued are complied with to the greatest possible extent.

In general terms, installations which come under the **AIC system** are not permitted to continue operation without the annual submission of an AIC report as set out in Article 5(1) of the Emissions of Volatile Organic Compounds from Organic Solvents Regulations 2002 (S.I. No. 543 of 2002).

In 2004, the EPA commissioned a project to identify potential non-IPPC installations which possibly come under the Solvents Directive 1999/13/EC. The resulting database has been provided to each of the Local Authorities. It is also available at:

[www.epa.ie/downloads/pubs/air/solvents/name\\_13065.en.html](http://www.epa.ie/downloads/pubs/air/solvents/name_13065.en.html). Local Authorities have used this list as a basis for identifying those installations under the legislation. It acted as a starting point in finding out how many installations are in their area. The initial estimates provided by this project work have been shown through local authority implementation to be an over-estimate. This had been expected by the project team concerned. The preliminary numbers provided for the previous report identified 2,142 (excluding vehicle refinishers) potential non-IPPC installations in total. Work completed on validating these installations have reduced this figure down to a range estimated between 444-501 activities (consisting of 235 authorised non-IPPC installations and 209 - 266 suspected unauthorised non-IPPC installations). This figure is expected to fall further.

Since 2005, the competent authorities for the Solvents Directive 1999/13/EC in Ireland (Local Authorities and EPA) have incorporated the monitoring and inspection requirements of the Directive into Inspection Plans prepared under the Recommendation for Minimum Criteria for Environmental Inspections (RMCEI 2001/331/EC). These monitoring and inspection requirements of the Solvents Directive 1999/13/EC are incorporated into the Inspection Plan on a risk basis.

Local Authorities have taken a number of measures in order to get the operators of installations to register and show compliance with the Solvents Regulations 2002. These included the following:

- Recommendations for prosecutions by local authority personnel.
- Notices served under the Air Pollution Act: including notices under section 26 of the Act which can be served to prevent or limit air pollution by requiring measures to be taken to meet the relevant ELV. In one case (Dublin City Council functional area) a dry cleaning premises subsequently ceased operation instead of registering.
- Warning letters issued to premises informing them of their obligations under the Regulations.

- Telephone calls to potential installations in order to get companies to register and to ascertain whether certain companies were within the remit of the Regulations.
- Advisory letters issued to businesses informing them of their obligations under the Regulations.

Some AICs have also supplied Local Authorities with lists of suspected installations within their functional area.

An enforcement guidance manual has been developed for Local Authorities on identifying installations falling under the Solvents Directive 1999/13/EC and taking enforcement actions for breaches of the legislation.

The EPA commissioned a survey of all Local Authorities on their implementation of the Directive, including all the necessary information required for this questionnaire report to the Commission. Based on the results of this questionnaire, the OEE (enforcement division of the EPA) which oversees local authority activities, can identify regions/sectors which may need to be improved. This will be achieved via the inspection planning process (RMCEI: Recommendation for Minimum Criteria for Environmental Inspections 2001/331/EC).

8.2 *In relation to Article 8(1), in the case where a Member State has introduced an 'on request' reporting obligation for the operator to supply the competent authority with data for the purposes of verifying compliance with the Directive, please state how many operators have supplied the competent authority with the necessary data and for how many installations?*

This question is not applicable since Ireland has implemented an annual reporting obligation on all installations rather than an 'on request' reporting obligation as outlined in the response to question 8.1.

8.3 *Without prejudice to Article 8(4) and in relation to Article 8(3), what is the number of installations with a non-continuous measurement frequency of more than one year?*

None of the installations that have been authorised in the reporting period have a non-continuous measurement frequency of more than one year for emissions where end of pipe abatement is needed to comply with the Solvents Directive 1999/13/EC. In all cases measurement is either continuous or periodic at frequencies ranging from quarterly measurement to biannual measurement.

## QUESTION 9 NON-COMPLIANCE

*In relation to Article 10:*

- *How many operators have been found breaching the requirements of this Directive?*

For the purposes of answering this question, "breaching the requirements of this Directive" is interpreted as either:

- Not being registered at all while operating one or more of the activities above the associated solvent consumption threshold, or,
- Being registered but not complying with one or more of the requirements set out in the Solvents Directive 1999/13/EC.

### IPPC

There have been some non-compliances at IPPC installations which have been pursued using the usual procedures (these are described in the next sub-question). The number of operators with non-compliances numbered 23 in total.

### Non-IPPC installations

In terms of non-IPPC installations, the following has been found in relation to breaching the requirements of the Solvents Directive 1999/13/EC:

- 11 dry cleaners and 2 surface cleaners (under category 5) that have registered and had AIC audits carried out, but have been found to be exceeding the emission limit values.
- An estimated 209 - 266 installations that may be under the scope of the Solvents Directive 1999/13/EC but who have not yet registered. See Question 2 for details. ***N.B. these figures may be an over-estimate since not all Local Authorities have fully completed the process of identifying all potential installations and getting them registered.*** Where this work has been carried out, it has been found that original estimates far exceeded the actual number of installations that fall under the Directive. This can be because sites don't actually use solvents, or not in sufficient quantities to exceed the thresholds, or carry out off-site solvent recovery which brings them under the consumption thresholds, or are dry cleaners that are drop-off-points only. These estimates are as follows:
  - *What measures are taken, in order to restore compliance 'within the shortest possible time' pursuant to Article 10(a)?*

In general terms, where it is found by the EPA that an IPPC installation is breaching any of the requirements of its IPPC licence, including the requirements of this Directive, the EPA puts into effect a process starting

with Notifications of Non-compliance issued by letter. Notifications of Non-compliance require the operator to respond with proposed corrective and preventive actions within a specified time period. In the event that an operator does not respond appropriately, the EPA's Office of Environmental Enforcement has recourse to prosecute the installation through the courts, and if necessary obtain a High Court Injunction.

Where the operator of an IPPC installation discovers a breach of the requirements of its IPPC licence, including the requirements of this Solvents Directive 1999/13/EC, the operator is obliged through a specific condition, which is in every IPPC licence, to notify the EPA by both telephone, and either facsimile or electronic mail, to the appropriate EPA Office of Environmental Enforcement, as soon as practicable after the occurrence. The licensee is required to submit an incident record to the EPA "as soon as practicable following incident notification" which must include all corrective actions taken to restore compliance and avoid recurrence. Such notifications are placed on the public file.

In general terms, where an operator of an installation that comes under the AIC system is aware that requirements are being breached, or an AIC becomes aware of this, Article 27 of the Emissions of Volatile Organic Compounds from Organic Solvents Regulations 2002 (S.I. No. 543 of 2002) requires the operator/AIC to inform the competent authority. Article 27 also requires the operator to take all necessary measures to ensure compliance is restored within the shortest possible time.

- *How many times have the competent authorities suspended or withdrawn the authorisation in case of non-compliance pursuant to Article 10(b)?*

In the reporting period, the competent authorities have not required the suspension or withdrawal of authorisation pursuant to Article 10(b) for any of the installations that are under the Solvents Directive 1999/13/EC. The EPA's Office of Environmental Enforcement has the power to obtain High Court Injunctions against operators of installations. No such High Court Injunctions were sought in the reporting period.

## **QUESTION 10 COMPLIANCE WITH EMISSION LIMIT VALUES**

- 10.1 Describe briefly practices to ensure compliance with the emission limit values in waste gases, fugitive emission values and total emission values.*

For installations which come under the IPPC system, practices to ensure compliance with the emission limit values in waste gases and the fugitive emission values include:

- Licence conditions requiring periodic monitoring of emissions in waste gases by licensees. Regular reporting of such monitoring to the EPA. Notification of non-compliances with the emission limit values in waste gases as soon as practicable after the occurrence.

- Licence conditions for calculating fugitive emission values in accordance with the Solvents Regulations 2002. Annual submission of an Annual Environmental Report (AER) to the EPA including a report on fugitive emissions to air.
- Periodic spot monitoring of emissions in waste gases by the EPA Office of Environmental Enforcement.
- Inspections and audits of installations by the EPA Office of Environmental Enforcement.

For installations which come under the AIC system, practices to ensure compliance with the emission limit values in waste gases, fugitive emission values and total emission values include:

- The requirement to obtain a Certificate of compliance on an annual basis from the competent authority with the annual submission and approval of a compliant AIC report.
- The requirement to prepare an annual solvent management plan as set out in the *National Protocol for the Implementation of a Reporting Mechanism in line with the requirements of S.I. 543 of 2002* and the various Best Practice Guidelines for the different sectoral activities, including the calculations to be used for fugitive emissions and total emissions in accordance with the 2002 Regulations. Electronic Excel spreadsheets for the compilation of solvent management plans have been published by the EPA for dry cleaning, (and vehicle coating & refinishing under the deco-paints system). These also have been amended to reflect operational experience and to take account of the Deco-paints Regulations 2007.
- Where meeting an emission limit values in waste gases, the requirement for an operator to carry out monitoring of the emission in accordance with the requirements of the *National Protocol for the Implementation of a Reporting Mechanism in line with the requirements of S.I. 543 of 2002*.
- The obligation on operators and AICs to report any breach of the requirements of the Solvents Regulations 2002 to the competent authority.
- The ability for a competent authority to contract an AIC to inspect and report on the applicability of the Solvents Regulations 2002 to an installation as set out in Article 23(2) to the Regulations.

*Please inform about examples of measures to ensure compliance applied during the period.*

## **IPPC Licensing System**

### **Example**

McGhan Limited Trading As ALLERGAN (licence no. P0115) is an existing installation that underwent a review of its IPPC licence in 2005. The purpose of the review was in part as a result of increased solvent use, but it was also to accommodate a new thermal oxidiser to be installed for the abatement of solvent emissions in order to meet the Solvents Directive 1999/13/EC.

The revised licence includes the appropriate emission limit values for activity 8 other coating of 50 mg C/m<sup>3</sup> for the new centralised emission point. Emissions from existing licensed points had to "cease from date of commencement of operation of RCTO or 1 November 2007, whichever is the sooner". The licence also includes the required fugitive limit of 20% of solvent input.

### **EPA Enforcement Activities**

For all relevant installations, the following measures to ensure compliance have been carried out for these sites within the reporting period of 1st January 2005 to 31st December 2007:

- a total of 173 site visits by EPA enforcement inspectors.
- a total of 44 site audits by EPA enforcement inspectors.
- a total of 67 on-site EPA air emission monitoring visits.
- Specific actions taken to restore non-compliance are outlined in question 10.

### **AIC Inspection System**

The following measures to ensure compliance have been carried out within and since the reporting period of 1st January 2005 to 31st December 2007:

- a total of 264 site inspections by accredited inspection contractors, with an additional 4 inspections where sites were found to be below the thresholds.
- a total of 309 site visits by local authority personnel to installations and suspected installations (and an additional 49 for vehicle refinishing sites).
- A large number of information packs, reminder letters, and in some cases follow up phone-calls from the Local Authorities to suspected installations and adverts in local media.
- 1 suspension of a Certificate of Compliance.
- 2 recommendations for prosecutions by local authority personnel.

- Over 146 warning letters from the Local Authorities to suspected installations.
- 25 Section 16 notices<sup>9</sup> under the Air Pollution Act to suspected installations.
- 10 Section 26 notices<sup>10</sup> under the Air Pollution Act to suspected installations.
- Advertisements on national and local radio, and in print media, were commissioned by the EPA to advertise both the Solvents Directive 1999/13/EC and the Deco-paints Directive 2004/42/EC.
- Development of training for dry cleaners through the Dry Cleaning and Laundry Skillnet ([www.dcls.ie](http://www.dcls.ie)). This includes courses and certification dealing with the practical requirements for the implementation of the Solvents Directive 1999/13/EC. This is funded through the national training fund. The EPA has presented at the launch of the Dry Cleaning and Laundry Skillnet.

10.2 *What are, in general terms, the most common practices concerning regular on-site inspections by competent authorities? In case those are not carried out, how do competent authorities verify the information provided by the operator?*

In the case of installations which come under the IPPC system, on-site inspections and audits are periodically carried out by the EPA's Office of Environmental Enforcement. In addition, periodic monitoring of waste gas emissions is also carried out by the EPA. The most common practices involve:

- Emission monitoring visits, where monitoring of waste gas emissions takes place. Such visits are usually unannounced. A report on the emission monitoring results is sent to the installation. Any non-compliances recorded are required to be addressed by the installation.
- Inspections/audits of the whole installation or in relation to one specific aspect of the licence. Such inspections/audits can be either planned or unannounced. Inspections/audits typically consist of an opening meeting, a site tour, documentation review, interview of personnel, and a close out meeting. A report on the inspection/audit

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<sup>9</sup> Under the Air Pollution Act, 1987, local authorities are empowered to issue notices for offences under different sections of the Act. The principal notices used to control air pollution are section 26, and section 16. Section 16 of the Air Pollution Act, 1987 allows local authorities to issue notices requesting specific information on activities conducted on the premises, emissions information or types/quantities fuels imported, or sold by persons. These powers are used as part of complaint investigation. Under Section 26 of the Air Pollution Act, 1987, local authorities may issue a notice specifying measures to be taken to prevent or limit air pollution. This power is the most widely used one by local authorities in dealing with air pollution problems including nuisance.

<sup>10</sup> *ibid*

is sent to the installation detailing any non-compliances or observations.

In the case of installations which come under the AIC system, the competent authority does not carry out regular inspections, although it can if it feels it necessary to do so. For the vast majority of installations under the AIC system, this function is performed annually by the Accredited Inspection Contractor (AIC). The procedure for carrying out site inspections is specified in the *National Protocol for the Implementation of a Reporting Mechanism in line with the requirements of S.I. 543 of 2002*. The INAB's *Application Guidance Standard on the application of ISO 17020:1998 by an Accredited Inspection Contractor (AIC) when conducting Inspections for the Emissions of Volatile Organic Compounds from Organic Solvents* explicitly requires AICs to use this protocol during inspections of installations. This has been updated and simplified with an inspection procedure and report template tailored for dry cleaning activities now available in addition to the generic template.

The most common practices during on-site inspections by AICs involve a site tour, documentation review (including solvent management plan documentation, back-up documentation, procedures, purchasing/procurement records, waste records, etc.), employee interviews, and where relevant measurement of emissions in waste gases (if meeting ELVs for waste gases and monitoring has not already been carried).

The AIC's accreditation from INAB to ISO 17020 (EN 45004) for the conduct of inspections to the Emissions of Volatile Organic Compounds from Organic Solvents Regulations 2002 (S.I. No. 543 of 2002) provides assurance to the competent authorities of the veracity of the information provided through the AIC Report.

## **QUESTION 11 REDUCTION SCHEME**

*11.1 What is the procedure to ensure that the reduction scheme proposed by the operator, corresponds as closely as possible to the emissions, which would have resulted if the emission limit values set out in Annex II of the Directive had been applied?*

For installations which choose to use the reduction scheme, but opt to use a reduction scheme proposed by themselves rather than the reduction scheme specified in Annex IIB to the Solvents Directive 1999/13/EC and repeated in Schedule 3 to the Solvents Regulations 2002, the following measures have been taken to ensure emissions correspond as closely as possible to the emissions which would have resulted if the emission limit values had been met:

- The *National Protocol for the Implementation of a Reporting Mechanism in line with the requirements of S.I. 543 of 2002* has a section for dealing with such reduction schemes where the AIC inspector must sign

off as being satisfied that the reduction scheme proposed is suited to demonstrate compliance with the Solvents Directive 1999/13/EC.

- In the relevant Best Practice Guidelines that have been developed, for example, the Best Practice Guidelines for Vehicle Coating & Refinishing, it is stated that an operator is allowed use any alternative reduction scheme to the one outlined in Annex IIB if it is more suited to the installation, but an equivalent emission reduction must be achieved and demonstrated. The Guidelines also require approval of the Local Authority for using an alternative reduction scheme.

*Please provide information about your experience with the application of the Reduction Scheme.*

Originally, a large number of existing installations that came under activity no. 6 vehicle refinishing, before its amendment by the Deco-Paints Directive 2004/42/EC, would have been expected to utilise the reduction scheme. However, the implementation of Deco-Paints Directive 2004/42/EC has removed them from the scope of the Solvents Directive 1999/13/EC. Note, Ireland has still retained a system for regulation of vehicle refinishers as described under question 1.

For installations which come under the AIC system, to date 2 installations have sought the use of the reduction scheme and been authorised to do so. Both are existing activities, Cameron Ireland Ltd. manufacturing metal parts for the oil industry and ABS Production Ltd. manufacturing submersible pumps and components. Both are carrying out "activity no. 8 - other coating". Both installations have used the reduction scheme in accordance with Schedule 3 of the Solvents Regulations 2002.

To date 1 IPPC installation has sought the use of the reduction scheme and been authorised to do so. This is for Dennison Trailers Ltd. (licence no. P0782-01) carrying out "other coating" of the metal chassis for trailers.

The licence for the 1 IPPC installation contains the following conditions:

#### "5.6 VOC Reduction Scheme

Emissions of volatile organic compounds shall be reduced, no later than 31st October 2007, to the target emission agreed by the Agency. The target emission shall achieve a VOC emissions reduction equivalent to that achieved if emission limit values in waste gases and fugitive emission values specified in Schedule 2 of the Solvents Regulations 2002 for vehicle refinishing were applied. The target emission shall be established in accordance with Schedule 3 of the Solvents Regulations 2002 and any relevant guidance issued by the Agency. Compliant coatings shall not be considered in the determination of the reduction scheme."

"6.15.1 The licensee shall demonstrate compliance with the target emission to the satisfaction of the Agency and report the assessment annually as part of the AER. The licensee shall keep records of the data from which the reported information was derived, supporting

documentation and a description of the methodology used for data collection. The methodology shall, no later than 31st October 2007, be agreed by the Agency."

"6.15.4 The licensee shall prepare and report an emission reduction plan for the installation that achieves the target emission for each calendar year as part of the AER."

It should be noted that the IPPC licence also sets an ELV for waste gases albeit at a more generous level than the Solvents Directive 1999/13/EC. It also requires the preparation of a test programme for the installation of abatement equipment, as well as a programme for the identification and reduction of fugitive emissions.

*11.2 If you have used the reduction scheme proposed by Annex II B(2), please answer the following questions:*

*11.2.1 Which procedures and practices are in place to calculate the annual reference emission?*

The National Protocol for the Implementation of a Reporting Mechanism in line with the requirements of S.I. 543 of 2002 sets out the general calculation procedure for the reduction scheme. This includes how to calculate the annual reference emission.

The 2 non-IPPC installations calculated the annual reference emission as per Schedule 3 of the Solvents Regulations 2002 which corresponds verbatim to Annex IIB of the Directive.

The licence for the 1 IPPC installation contains the condition 5.6 outlined above in answer 11.1 which refers to Schedule 3 of the Solvent Regulations 2002.

*11.2.2 Which procedures and practices are in place to calculate the emission target?*

The *National Protocol for the Implementation of a Reporting Mechanism in line with the requirements of S.I. 543 of 2002* sets out the general calculation procedure for the reduction scheme. This includes how to calculate the target emission.

The 2 non-IPPC installations calculated the annual reference emission as per Schedule 3 of the Solvent Regulations 2002 which corresponds verbatim to Annex IIB of the Solvents Directive 1999/13/EC.

The licence for the 1 IPPC installation contains the conditions outlined above in answer 11.1. The Schedule 3 of the Solvent Regulations 2002 referenced in licence condition 5.6 corresponds verbatim to Annex IIB of the Solvents Directive 1999/13/EC.

11.2.3 Which procedures are in place to ensure that compliance with the target emission is achieved?

Answer may be brief and summary in form.

The AIC report template and procedure in the *National Protocol for the Implementation of a Reporting Mechanism in line with the requirements of S.I. 543 of 2002* calculates the target emission and then compares the target emission with actual emissions. The AIC report template then records either compliance or non-compliance. The AIC also assesses the emission reduction plan for the installation and provides an opinion as to whether this emission reduction plan will maintain/achieve compliance with the target emission.

An AIC records in the AIC report any major non-compliances (reason(s) for the installation being non-compliant), minor non-compliances (less serious issues which in time could become major non-compliances – inspection passed), and observations (areas for improvement by the operator with a view to avoiding minor non-compliances in the future).

The requirement to obtain a Certificate of compliance on an annual basis with the annual submission of an AIC report is to help ensure that compliance with the target emission is achieved. One of the non-IPPC installations has obtained 2 annual Certificates of Compliance to date while the other has obtained one.

For the 1 IPPC licensed site which has used the reduction scheme, the installation must prepare and report an emission reduction plan that achieves the target emission for each calendar year as part of the AER.

## **QUESTION 12 SOLVENT MANAGEMENT PLAN**

*According to Article 9, how is compliance by the operator demonstrated (solvent management plan or equivalent)?*

For installations which come under the AIC system:

- Compliance with emission limit values in waste gases is demonstrated through monitoring carried out on behalf of the operator by either a competent consulting company, by an AIC, or by an AIC's sub-contractor. These results must be interpreted in accordance with Articles 9(3) and 9(4) to the Solvents Directive 1999/13/EC as set out in the *National Protocol for the Implementation of a Reporting Mechanism in line with the requirements of S.I. 543 of 2002*.
- Compliance with fugitive emission values, compliance with total emission values, or compliance with a reduction scheme, is demonstrated by the operator through the preparation of a solvent management plan. The *National Protocol for the Implementation of a Reporting Mechanism in line with the requirements of S.I. 543 of 2002* sets out how to compile a solvent management plan in

general terms and reflects Annex III to the Solvents Directive 1999/13/EC. The various Best Practice Guidelines tailor the solvent management plan to the type of activity concerned.

For installations which come under the IPPC system:

- Compliance with emission limit values in waste gases is demonstrated through monitoring as set out in the conditions to the IPPC licence. IPPC licences also have a condition for interpretation of monitoring results that reflect Articles 9(3) and 9(4) to the Solvents Directive 1999/13/EC. Reports on monitoring are required at frequencies specified in the IPPC licence. A summary report on monitoring is included in the installation's Annual Environmental Report (AER).
- A condition in relevant IPPC licences requires fugitive emissions to be calculated in accordance with Schedule 6 to the Solvents Regulations 2002. Schedule 6 to the 2002 Regulations is the solvent management plan as per Annex III to the Solvents Directive 1999/13/EC. Compliance with fugitive emission values must be demonstrated annually through a full report on fugitive emissions included annually in the installation's AER.

### **QUESTION 13 PUBLIC ACCESS TO INFORMATION**

*Which practices, in general terms, are in place to ensure the application of Article 12 on public access to information?*

#### **For installations under the AIC system:**

Article 29 to the Emissions of Volatile Organic Compounds from Organic Solvents Regulations 2002 (S.I. No. 543 of 2002) requires competent authorities to maintain a register for public information which records every report submitted by an Accredited Inspection Contractor (AIC), every Certificate of compliance, and every notification of non-compliance.

An enforcement guidance manual on implementing the Solvents Directive 1999/13/EC developed by the EPA in conjunction with the local authority Environmental Enforcement Network includes a section on the requirements in relation to keeping a public register.

A project was undertaken on behalf of the EPA to identify existing installations that come under the Accredited Inspection Contractor (AIC) scheme. The output from this project was sent to each city council or county council to be used as a starting base for the Register required under Article 29 to the 2002 Regulations. The resulting database is available from the EPA at:

[www.epa.ie/downloads/pubs/air/solvents/name\\_13065\\_en.html](http://www.epa.ie/downloads/pubs/air/solvents/name_13065_en.html).

However in the majority of cases the Local Authorities have refined the list of applicable activities for their functional area.

One of the questions in the EPA commissioned survey of city and county councils for the purposes of this report was for each authority to outline information on how the requirement to maintain a Register for public information is met. 32 of the 34 Local Authorities had satisfactorily demonstrated that they had established a register for public information. This is usually in hard copy format but also in electronic format in some instances.

### **For installations under the IPPC system:**

All applications for IPPC licences are available for public viewing at the EPA's headquarters. All applications for IPPC licences or for revised IPPC licences (such as that caused by a substantial change) are required under the Environmental Protection Agency (Licensing) Regulations 1994 – 2004 (S.I. No. 85 of 1994, S.I. No. 240 of 1996 and S.I. No. 394 of 2004) to be made available for a period of time to the public to enable it to comment on them before the EPA reaches a decision. Any person may make a written submission to the EPA in respect of an application for an IPPC licence. The appropriate period for receipt of objections is currently within 21 days for third parties and within 28 days for applicants of the notification of the proposed determination.

Proposed Determinations (draft licences) and issued IPPC licences are all downloadable from the EPA website at:

([www.epa.ie/terminalfour/ippcApril/index.jsp](http://www.epa.ie/terminalfour/ippcApril/index.jsp)).

The results of emissions monitoring by both the operator of the installation and by the EPA are available for public viewing in the enforcement files maintained at the four Offices of Environmental Enforcement. The website details the licences held by each office. The EPA has established a public information viewing procedure, which is available on its website ([www.epa.ie/whatwedo/licensing/files/](http://www.epa.ie/whatwedo/licensing/files/)).

In terms of the general binding rules being available to members of the public, the Department of Environment, Heritage and Local Government (DEHLG) has a downloadable copy of the 2002 Regulations on its website about the Regulations at:

[www.environ.ie/en/Environment/Atmosphere/AirQuality/VolatileOrganicCompounds/](http://www.environ.ie/en/Environment/Atmosphere/AirQuality/VolatileOrganicCompounds/).

The EPA also maintains a page about the Solvents Regulations 2002 on its website which has downloadable documents such as a plain guide to the Regulations, the various Best Practice Guidelines, Excel spreadsheets for the compilation of solvent management plans, and the *National Protocol for the Implementation of a Reporting Mechanism in line with the requirements of S.I. 543 of 2002*.

([www.epa.ie/downloads/advice/air/solvents/](http://www.epa.ie/downloads/advice/air/solvents/)).

Both the *National Protocol for the Implementation of a Reporting Mechanism in line with the requirements of S.I. 543 of 2002* and the

application form for IPPC licences require any information considered to be confidential in nature to be indicated clearly.

The EPA's website has a page dealing with the Solvents Directive 1999/13/EC as well as the vehicle refinishing aspect of the deco-paints legislation. This web-page provides a brief overview of the implementation of the Directive in Ireland, and has a range of downloadable documents, including much of the material mentioned in both this report and the first report. It also contains some relevant contact points and links.

[www.epa.ie/whatwedo/advice/air/solvents/](http://www.epa.ie/whatwedo/advice/air/solvents/)

#### **QUESTION 14 RELATIONSHIP WITH OTHER COMMUNITY INSTRUMENTS**

*How do Member States view the effectiveness of the Directive, inter alia, in comparison with other Community environmental instruments?*

As outlined in the previous questionnaire report, it had been anticipated that implementation of Directive 1999/13/EC would result in a reduction in VOC emissions. The most recent NMVOC inventory for Ireland<sup>11</sup> shows that estimated overall emissions of VOCs for SNAP sector 06 are down by 16% between 1998 and 2004. SNAP sector 6 includes all of the activities covered by the Solvents Directive 1999/13/EC. Directive 1999/13/EC is considered to be a crucial instrument for Ireland to meet its requirements under the National Emission Ceilings Directive 2001/81/EC.

However, while implementation of the IPPC Directive 1996/61/EC and the Solvents Directive 1999/13/EC have caused a reduction in emissions of NMVOCs through solvent reduction, substitution and increased use of abatement, it should also be noted that there has been a contribution to the reduction through some sites ceasing operation. There have been closures, particularly of a few of the large emitters which has brought down emissions, but there has also been some new processes licensed.

On the positive side, sites have certainly reduced solvent emissions either through abatement, or even more favourably through reduced solvent use. For example:

- Wyeth Medica Ireland (licence no P0652): IPA usage reduced significantly due to the ceasing of the use of IPA for filter integrity testing. Further to this ethanol was replaced with benzyl alcohol. As a result of this the Solvents Regulations 2002 no longer apply since 2007.
- Print & Display Ltd. (licence no P0-0116): in 2005 a UV based ink printing machine was installed which reduces the usage and emissions of VOCs such that the Solvents Regulations 2002 no longer apply since 2006.

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<sup>11</sup> NMVOC Inventory for Ireland (SNAP Sector 6: Solvent and other product use only) - 2000 to 2004 A Report Produced for the Environmental Protection Agency By Clean Technology Centre, Cork And AEA Technology Environment – NETCEN, November 2005.

Ireland has a very proactive record in terms of implementation of the related IPPC Directive 1996/61/EC. In fact, a large number of IPPC installations were licensed before the final adoption of the IPPC Directive 1996/61/EC. One aspect of the Irish IPPC legislation which goes further than the Directive is in relation to the requirement for sites which manufacture or use of coating materials in processes with a capacity to make or use at least 10 tonnes per year of organic solvents to hold an IPPC licence. This is a much lower threshold than under the IPPC Directive 1996/61/EC.

Directive 1999/13/EC is significantly more prescriptive than many other environmental instruments such as the IPPC Directive 1996/61/EC.

The presence of installations that come under the scope of the legislation can be difficult in some cases for the enforcement authorities to identify. Identification involves determining if a particular activity is being carried on; if it is, are VOCs in use for this activity; if they are, is their use as a solvent; if yes is the amount being used above the threshold; if there is waste being collected is it being sent for recovery and does this cause the consumption to come under the threshold. The activities which can prove particularly difficult to identify are those involving the surface cleaning of products. A useful instrument would be a mandatory requirement for suppliers of all VOC materials to provide information to the authorities on the quantities of VOCs supplied to individual companies.

One AIC noted that dry cleaning installations with older machines cannot meet the emission limit value.

AICs are keen to see the system utilised for other areas.

The survey of city and county councils included this question as well as a question asking the effectiveness of the Irish system of implementation for non-IPPC companies - the AIC scheme. Not every respondent provided an opinion.

Regarding the effectiveness of the Directive itself, responses from the Local Authorities considered it effective with regard to regulating dry cleaning activities in particular. Associated benefits outlined included the standardising of solvent and waste handling procedures for these activities, worker training, as well as better workplace occupational standards. One authority expressed regret that small-scale furniture finishing installations, i.e. wood coating, are outside the scope and so can be difficult to address except in a planning context. Another that dry cleaners, in the context of what has gone before, to be an insignificant source. The possibility of identifying solvent users through mandatory information from the suppliers/importers of solvents was also mooted.

Regarding the effectiveness Irish AIC system for non-IPPC companies, the responses from the Local Authorities were generally favourable indicating it allowed the Local Authorities to focus on the non-compliant installations, the fact that AICs were deemed competent to carry out the inspections meaning the local authority staff did not need to duplicate this

competency. Some of the more negative reflections are mainly to do with the first operational years of the AIC system:

- Four Local Authorities considered there had been some delays due to the number of AICs versus the number of installations. One further local authority had some issues regarding verity of information supplied in the AIC reports.
- Three Local Authorities mentioned a variance in the standard of reporting between the different AICs. A similar opinion has also been expressed by 2 of current 3 the AICs.
- Logistical problems with issuing Certificates to a common date for all installations.

## APPENDIX 1

Questionnaire for Local Authorities on the SOLVENTS REGULATIONS (S.I. No. 543 of 2002) for preparation of the 2nd report to the European Commission		
<p style="text-align: right;"><b>Local Authority Name:</b></p>		
<p style="text-align: right;"><b>Contact name for compilation of the database:</b></p>		
<p style="text-align: right;"><b>Position:</b></p>		
<p><b>Q1</b> Please complete the database in the "Database" tab for all solvents Regulations activities that are registered. NB: Do <b>not</b> include information for individual vehicle refinishing for repair installations registered either under the 2002 Regulations or under the 2007 Decopaints Regulations.</p>		
<p><b>Q2</b> How many installations for vehicle refinishing for repair (if any) had registered under these 2002 solvents Regulations before the advent of the 2007 Decopaints Regulations.</p>		
<p>Please provide your best estimate of the number of additional installations (i.e. beyond those registered as recorded in the Database in Q1 under each of the categories relevant to local authority control:</p>		
<b>Q3</b>	Number known/suspected to exist but not yet registered	Any comments
4 Surface cleaning using compounds with specified risk phrases (R45, R46, R49 R60, R61, or R40 and halogenated) (solvent consumption > 1 tonne per annum)		
5 Other surface cleaning (solvent consumption > 2 tonnes per annum)		
6 Original coating of vehicles or coating of trailers (solvent consumption > 0.5 tonnes per annum)		
8 Other coating, including metal, plastic, textile, fabric, film and paper coating (solvent consumption > 5 tpa)		
9 Winding wire coating (> 5 tpa)		
11 Dry cleaning (no threshold)		
12 Wood impregnation (> 25 tpa)*		
14 Footwear manufacture (> 5 tpa)		
15 Wood and/or plastic lamination (> 5 tpa)		
16 Adhesive coating (> 5 tpa)		
17 Manufacture of coating preparations, varnishes, inks and adhesives (> 100 tpa)*		
18 Rubber conversion (> 15 tpa)*		
19 Vegetable oil and animal fat extraction and vegetable oil refining activities (> 10 tpa)*		
20 Manufacturing of pharmaceutical products (> 50 tpa)		
<p>[* These asterisked activities are either unlikely to be using solvent at all, or unlikely to be using solvent at the specified levels without being IPPC licensable, but are included for completion]</p>		
<p><b>Q4</b> Please provide some examples of the conditions that are attached to Certificates of Compliance for one or more categories of activity</p>		

<b>Q5</b>	Please detail the number of site inspections carried out, if any, under each of the categories relevant to local authority control:	
	Number of site inspections carried out by LA personnel	Number of site inspections contracted to AICs <i>on behalf of the LA</i> (does not include regular AIC inspections)
	4 Surface cleaning using compounds with specified risk phrases	
	5 Other surface cleaning	
	6 Original coating of vehicles or coating of trailers	
	8 Other coating, including metal, plastic, textile, fabric, film and paper coating	
	9 Winding wire coating	
	11 Dry cleaning	
	12 Wood impregnation	
	14 Footwear manufacture	
	15 Wood and plastic lamination	
	16 Adhesive coating	
	17 Manufacture of coating preparations, varnishes, inks and adhesives	
	18 Rubber conversion	
	19 Vegetable oil and animal fat extraction and vegetable oil refining activities	
	20 Manufacturing of pharmaceutical products	
<b>Q6</b>	Please provide a short description of any actions taken, including enforcement actions (notices, warning letters, etc.), to get companies registered who have not done so, to ensure compliance, or to address any major non-compliances.  Provide summary details on the number, if any, of prosecutions taken, notices issued, warning letters issued, enforcement visits, etc..	
<b>Q7</b>	Please provide brief information about how you meet the requirement to maintain a Register for public information. (Please note that the information required for the database worksheet of this questionnaire is similar to that required for the public register.)	
<b>Q8</b>	Please provide information about your experience, if any, with the application of the Reduction Scheme	
<b>Q9</b>	How do you view the effectiveness of 1) the solvents Directive and 2) the AIC system for its implementation	

c) NON_COMPLIANCES					d) EXEMPTIONS					e) OTHER INFO	
Any major non-compliances? (Yes or No; Please record even if subsequently addressed)	For any major non-compliances - was a notification of non-compliance issued to the installation?	For any major non-compliances - give a brief description on what was done by the local authority to get the installation to restore compliance?	In relation to identified major non-compliances - note if it has been resolved or if it is still outstanding	In relation to major non-compliances - has any Certificates been suspended or withdrawn?	Did any installation seek an exemption from fugitive emission limit values? (only relevant to other surface cleaning, coating activities and pharmaceuticals)	If yes, was an exemption granted?	If an exemption was granted, was it demonstrated that its not technically and economically feasible; provides no significant risks to human health or the environment; & best available technique is being used?	Did any installation seek an exemption for uncontained conditions? (only relevant to other coating activities)	If yes, was an exemption granted?	If an exemption was granted, was it demonstrated that the ELVs and reduction scheme are not technically and economically feasible; & best available technique is being used?	Any other comments about this installation (if needed)

**DATABASE OF INSTALLATIONS REGISTERED UNDER THE SOLVENTS REGULATIONS (S.I. No. 543 of 2002)**

NB: Do **not** include information for vehicle refinishing for repair installations registered, either previously under the 2002 Regulations, or under the 2007 Decopaints Regulations. Summary data on numbers only is needed on the registration of such activities as contained in the "Questions" tab. Information for most of these categories should be available on the first 2 pages of the AIC reports

a) Company Details						b) PERFORMANCE INFORMATION												
Company ID number	Company Name	Address	Solvents Regulations Activity	Date of first Registration	New/existing or substantially changed installation	No of AIC reports received for this installation	No of Certificates of Compliance issued for this installation	Are any AIC reports overdue from this installation?	Solvent Used in the period [11] (insert from 2nd page of AIC report)			Is the installation using the reduction scheme? If yes is it that under the Regulations or their own alternative? (only relevant to coating - not relevant to dry cleaners, etc.)	Is emissions measurement required for this installation? (only where there is a waste gas ELV - not relevant to dry cleaners)	If emissions measurement is required - has satisfactory data been provided?	Is the installation using solvents with any specified risk phrase? (other than dry cleaners using perc) [R45, R46, R49, R60, or R61 & halogenated with risk phrase R40]	If any sites were identified as using solvents with specified risk phrases R45, R46, R49, R60, or R61 - were conditions regarding substitution of such solvents included in the Certificate of Compliance?	Installation subsequently identified as being under IPPC control? (indicate yes, if relevant)	
(if any, according to your own system or register)		(insert more columns as needed)	(choose one of the options when you click on a cell )	(Choose one of the options when you click on a cell; this info is on the 2nd page of AIC report)	AIC report - 1st year				AIC report - 2nd year (if relevant )	AIC report - 3rd year (if relevant )								