

## Background to IPPC

Integrated Pollution Prevention and Control (IPPC) is a regulatory system which implements a EU Directive (96/91) through The Pollution Prevention and Control Act 1999, introducing a more integrated approach to controlling pollution from industrial sources, achieving a high level of protection of the environment by preventing or, where that is not practicable, reducing emissions to the air, water and land. IPPC covers around 6,000 "installations" across England and Wales.

IPPC affects a range of industrial sectors including Combustion Activities, Production/Processing of Metal, Mineral Industries, Chemicals, Waste Management, Other Industrial Activities (eg Paper, Pulp and Board Manufacturing; Tar & Bitumen Activities; Coating & Printing; Food and Drinks, Intensive Farming). For each sector there are certain threshold levels; only installations above these limits will be captured under IPPC. Schedule 1 of the Statutory Instrument SI 2000 1973 shows whether a company is required to apply for a permit. Since publication different each of the sectors of industry set out in schedule 1 have had to apply for a permit.

### ABRICON'S SERVICES ADDRESS THE MAIN FACETS OF THE IPPC REGULATORY CYCLE:

- The initial Application Process, which require for a Best Available Techniques (BAT) appraisal and an Application Site Report (ASR)
- The Permit Conditions contained in the permit. A Site Protection and Monitoring Programme (SPMP) will be called for Other Conditions may require an EMS (externally certified), improved Energy Efficiency, a commitment to Waste Minimisation and the implementation of BAT to minimise releases to the environment.
- The ongoing Improvement Programme, set by the regulator including requirements for improving environmental performance and progressive introducing Best Available Techniques (BAT) for control of the installation's environmental impact

Wherever you are in the cycle, Abricon can help. The next few pages spell out some of the detail. Call Gary Nelson on 0117 930 4111 to learn more or e-mail [info@abricon.com](mailto:info@abricon.com) for an informative facts sheet.

### OUR GENERAL ADVISORY SERVICE LEVEL

Abricon can help you understand your permit and what it requires. We will run a one day session; two of our consultants will visit you, review the permit, explain what it requires and leave you with a printed action plan. The plan enables the client to move forward with confidence, make the best use of in-house resources, and establish what external support is necessary. Put in a nutshell, we help clients to meet permit conditions, plan/deliver improvement programmes and forge effective communication links with the regulators, making the most of time and resources.

### MAKING AN APPLICATION

Abricon works with its clients to deliver the three parts of the application package (Best Available Techniques (BAT) appraisal; Application Site Report; Application Form). The BAT appraisal determines the installation's environmental impact against environmental benchmarks. The Application Site Report (ASR) concentrates on the current contamination conditions of the site and its surroundings rather than the process. The application form covers issues such as air emissions, aqueous discharges; odour; emissions to land, raw materials, energy efficiency, waste storage/handling; noise and vibration; accidents/incidents; EMS, and site restoration on closure.

Abricon works closely with its client on key issues eg minimising the EP-OPRA score and related financial charges, identifying data requirements, advising if computer modelling or further studies are needed, planning/managing the application process and the consequential requirements.

### BAT APPRAISAL

Abricon finds that clients view this as the most daunting part of the application process. BAT means least impact on the environment within technical and reasonable economic constraints. BAT appraisal justifies the techniques applied by clients ranged against environmental benefits and associated costs. In essence, Abricon assesses impacts using operating and monitoring data, identifies alternative abatement and technology options, compares the assessment with published sector level BAT guidance, refines the assessment against horizontal guidance (including H1) and other relevant guidance eg on Energy, Noise and Odour.

### CLIENTS' REQUIREMENTS DIFFER, GIVEN THEIR PRIOR CIRCUMSTANCES. TYPICALLY ABRICON MIGHT

- Perform a BAT review for the installation.
- Carry out process mapping and review industry best practice.
- Run training/workshop sessions on BAT to transfer knowledge
- Drive the H1 assessment process
- Design data collection systems and database tools for management and communication of environmental impact information
- Establish whether the installation is "low impact"

Companies with a very low impact on the environment attract correspondingly lower charges for the permit. It is the operator's responsibility to demonstrate that his facility is "low impact", based on the EA guidelines. Abricon has had several successes to date in justifying low impact status for its clients, with significant savings in permit costs. Note that the site report and the BAT appraisal are still required.

### APPLICATION SITE REPORT (ASR)

The ASR is required as part of the PPC Permit application. Its principal objective is to provide information on the ground contamination conditions of the site to enable the regulator to set appropriate permit conditions to protect the land from any further contamination during the operational life of the Installation. Typically Abricon will collect and collate desk based information on the activities and substances used at the installation (past and present) that could present a pollution risk to the land now or in the future. Issues covered in the ASR include site location, history, layout, surroundings, geology/hydrogeology; raw materials inventory; and Conceptual Site Model. In conclusion the Abricon ASR will state that there is either little likelihood that pollution or leaks to the land will occur during the life of the installation or a reasonable possibility of current or future pollution of the land from the installation. The regulator will review the information provided in the ASR and assess whether they agree with the conclusion stated.

### COMPLETING THE APPLICATION FORM

The Environment Agency PPC Application form provides the framework for the PPC Application. The application form can be completed electronically (sector specific form published by the EA on CD) or in hard copy, paper based form (more generic, available on the EA website). The Environment Agency has published electronic application forms for each of the sectors, available on CD. Abricon tailors its service to client circumstances and requirements. We offer a basic "helpline" service, or partial/complete turnkey application service.

### PERMIT FEES AND EP OPRA

There are four different types of permit fees:

- Application, paid at the time of application submission
- Annual Subsistence, paid to maintain the permit "in force"
- Permit Variation, paid when the permitted operations change significantly
- Permit surrender, paid when the permit is handed back to the regulator.

For Part A (1) permits (regulated by the EA and covering the most polluting industries) these fees are calculated based on the Environmental Protection Operator and Pollution Risk Appraisal (EP OPRA) scores, which are based on a risk screening methodology developed by the EA. The scoring is based on the risk of pollution, and operator performance, and the score is then translated into a fee. For Part A(2) and Part B applications as well as Low Impact the four different permit fees are charged as a flat rate by the regulator) the local authority. Abricon works with its clients and the regulators to minimise the fees to be paid eg driving improvements which will lower the OPRA score and thus the fees based on it, making the case for "low impact".

### IMPROVEMENT PROGRAMME AND PERMIT CONDITIONS

The permit once granted will contain an improvement programme - a list of actions required by the site which may include physical improvements to the site's infrastructure, abatement systems and/or further studies, audits to enable the regulator to identify where further improvements may be required to ensure that BAT is achieved. There will also be a wide range of permit conditions on issues such as management actions, operating conditions to prevent and minimise environmental impacts to air, odour, water, land including fugitive emissions, monitoring requirements, Site Protection and Monitoring Programme, Process changes to meet BAT, Pollution Inventory Reporting. All permits can be expected also to cover management control issues such as training, maintenance (procedures and records), procedures for dealing with incidents and complaints, resource efficiency, energy management, waste management, accident prevention and control, noise and vibration, site closure and decommissioning.

Abricon has extensive experience of dealing with permit conditions, and assisting companies in improvement planning and effective communication with the regulators to meet their requirements whilst prioritising and making optimum use of time and resources. Frequently our first task is to audit the site's EMS against its permit conditions and develop an action programme within the regulatory timetable to ensure that the installation continues to meet its permit obligations. We back this up with comprehensive technical support to ensure that the client can fulfill conditions and tackle the improvement programme. For clients who are new to IPPC, we offer a half day "orientation" session to review the permit, explain what it requires and draw up a printed action plan. The client can then move forward with confidence, and make the best of their in-house resources and further support from Abricon.

### ENVIRONMENTAL MANAGEMENT SYSTEMS

An Environmental Management System will provide an organisation with a framework to identify, prioritise and control its environmental impacts, and a systematic approach to continually improving its environmental performance. The regulators regard the presence of an EMS at a company as a sign of good management practice, and a significant contribution to the demonstration that BAT is being applied to minimise releases to the environment.

The EA, in its approach to calculating the "cost of regulation", and thus the charges it levies on a company, factors in the maturity of a company's progression towards an EMS and then onwards to its certification, meaning that companies with an EMS are charged less than those without one. There are many other benefits from having an EMS in place, including resource efficiency gains, cost savings, improved business risk control, assured compliance, improved stakeholder relationships. Abricon, itself a fully ISO 9001 and

14001 certified company, can offer various levels of support to provide a system suitable for the individual company, from training and mentoring to full turnkey system development..

#### SITE PROTECTION AND MONITORING PROGRAMME (SPMP)

The SPMP is the key post IPPC application document following the ASR, forming the basis of the monitoring activities to be carried out at the site until the surrender of the permit. The SPMP is mandatory if the permit is to be retained. The regulator will require an SPMP to be submitted either with or without reference data. Reference data will be required if the ASR submitted showed that there was potential for pollution to be emitted to the land. Abricon has developed many SPMPs for its clients and offers a full service.

#### MONITORING AND OMA

As well as various one-off conditions there is a requirement for regular monitoring and reporting to the regulator on at least an annual basis and often quarterly. During the first year of the permit the site will also be audited under the Operator Monitoring Audit regime, with the results used, in conjunction with the OPRA assessment, to determine fees and charges for permit maintenance. Abricon trains and coaches clients preparing for an OMA audit.

#### POLLUTION INVENTORY REPORTING

The Pollution Inventory (PI) is an annual record of pollution in England and Wales from selected activities regulated by the Environment Agency. The purpose is to collect information from operators on annual mass emissions of specified substances to air and water and off-site waste transfers. Abricon helps its clients to plan and collect data efficiently to aid smooth reporting.

#### SITE CLOSURE PLANS

The Site Closure Plan is one of the standard requirements in the permit. Abricon works with its clients to ensure that data is gathered during the operation of the permit so that unambiguous records of any potential pollution incidents, activities and impacts, and the site's responses, are available on which to base negotiations with the regulator, should the site close. Abricon offers comprehensive and detailed assistance which covers every angle including communications with affected stakeholders.

#### PERMIT TRANSFER

IPPC installations may change hands through normal business transactions. The PPC Regulations therefore allows for permit transfer, under certain conditions. Abricon can advise on all obligations triggered by transfer, for either transferor or transferee, and prepare any necessary documentation.

#### SURRENDER SITE REPORT (SSR)

When a site closes the operator has to prepare an application to surrender the permit.

The documentation required will include:

- Site report identifying any changes since permit issue
- Statement on the remediation status of the site
- Statement that the site is in a satisfactory and clean state
- Identification of steps taken to avoid pollution risk
- Measures taken to return site to its pre-permit state.

If the regulator is satisfied with the data provided the application will be accepted, however the regulator has the right to reject the application in which case site remediation will be required. Abricon can help by preparing all documentation and leading

negotiations with the regulator, and, if remediation is unavoidable, manage the site clean-up.

### STAKEHOLDER LIAISON

This is an important aspect of the application process. Abricon can advise on how to deal with the relevant stakeholders such as statutory consultees, the local community, including the mandatory steps, usually as part of the wider PR strategy of the client organisation.

### AIR EMISSIONS

Air emissions are assessed within the BAT framework using sampling, calculation or modelling approaches. Abricon offers a full suite of technical support approaches in support of air emissions assessment and abatement.

### NOISE MONITORING AND ADVICE

For non-rural sites, the permit will include noise monitoring and abatement in its conditions or Improvement Programme. The horizontal guidance document on noise and the appropriate sector-specific guidance note provide the framework for noise regulation under IPPC.

Abricon uses specialists to measure noise levels. Our role is to design the measurement programme (what, where and when) so that background noise and noise from the operational installation is measured, including noise levels at the site boundary. If the noise impact on the local community is a key issue (eg complaints in the past), the programme design must address these issues. To ensure credibility noise measurements are carried out to the British Standard (e.g.BS4142). Where there is cause for concern, mitigation measures are recommended by Abricon.

### ODOUR

Odour from a site or process is a major public perception issue and a frequent source of complaints to the local authorities from the general public. The horizontal guidance document on odour and the appropriate sector-specific guidance note aim to bring consistency to the overall approach to the regulation of odorous emissions by the regulator under IPPC. Abricon measures odour and recommends process changes for its abatement, and negotiates with regulators to obtain a cost-effective regulatory solution.

### WASTEWATER

All discharges from the site to sewer or other "controlled waters" have to be listed as part of the permit. A copy of the installation's trade effluent consent also has to be included in the permit application. Abricon advises on water consumption and wastewater generation as part of its utility audit service (which also includes energy)

### WASTE MINIMISATION (RESOURCE EFFICIENCY)

A waste minimisation audit is now an established feature in PPC Improvement Programme. Abricon has been at the forefront in this field since the early 1990s. It has well-developed approaches which establish the "true total cost of waste", allocate it between processes and elaborate changes in technology or management techniques to reduce waste at source.

### ENERGY REVIEWS AND ENERGY EFFICIENCY PLANNING

In most permits there is a requirement for energy surveys and/or energy efficiency measures. The EA will expect that the site follows guidance as laid out in horizontal guidance on energy efficiency. Abricon energy management specialists are experienced in assessment of current energy efficiency performance, cost/benefit appraisal of energy efficiency options (DCF), and in assessing the

environmental impact of energy consuming activities. Abricon energy review are part of a pro-active approach leading to cost savings, reduced emissions (carbon footprint) and improved environmental image.

