

IPC Licensing and Audits

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epa

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The EPA

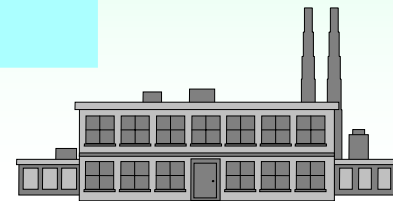
- ✉ **The EPA is an independent statutory body, established under the EPA Act, 1992.**
- ✉ **It was formally established on 26 July 1993 with the purpose of protecting Ireland's natural environment.**
- ✉ **Managed by a full-time Executive Board consisting of a DG and four Directors**

Reasons for EPA:

- 📄 Potential conflict between development and protection role of Local Authorities
- 📄 Increase in pollution incidents, fish kills etc
- 📄 Lack of public confidence in the existing system
- 📄 Anticipation of further EU driven legislation
- 📄 Introduction of a unified permit system based on IPC

Responsibilities of EPA

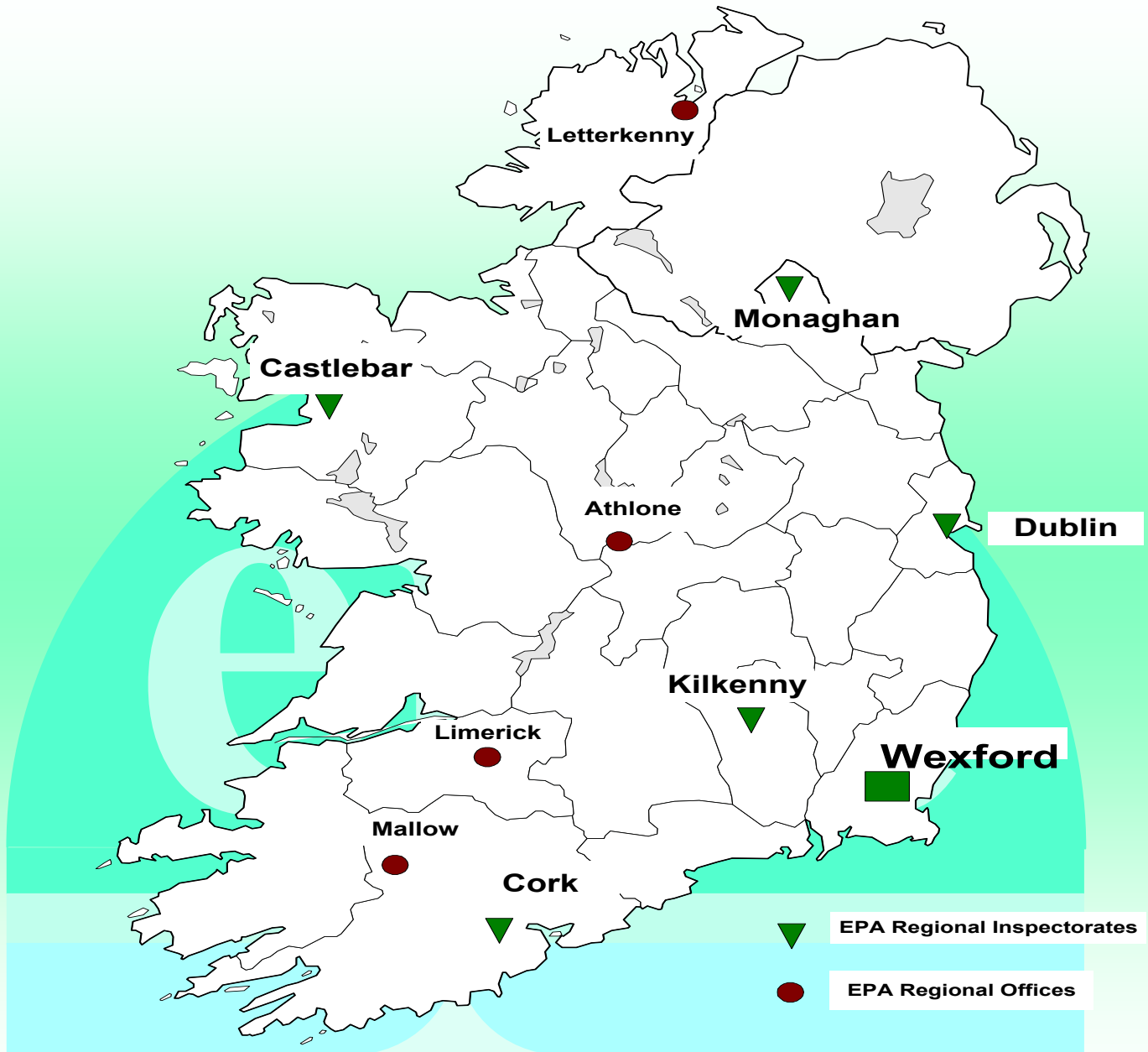
- 📄 the licensing & regulation of large/complex industries, including Intensive Agriculture, on the basis of Integrated Pollution Control (IPC).
- 📄 the licensing and regulation of all significant waste disposal and recovery activities, including landfills.
- 📄 **Other Regulatory Functions:**
 - ➔ VOC Permitting
 - ➔ GMO Regulations
 - ➔ Phosphorus Regulations
- 📄 the preparation of a national hazardous waste management plan.



Responsibilities of EPA

- ☞ **generally overseeing the performance by local authorities of their statutory environmental protection functions.**
- ☞ **monitoring and reporting on environmental quality**
- ☞ **the promotion and co-ordination of environmental research.**
- ☞ **the preparation and implementation of a national hydrometric programme.**





EPA Locations

Organisation of EPA

- ◆ Licensing and Control Division
- ◆ Monitoring and Laboratory Services Division
- ◆ Management and Planning Division
- ◆ Corporate Affairs Division
 - 5 Regional Inspectorates
 - 242 staff in total

IPC

(Integrated Pollution Control)



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Integrated Pollution Control Licensing

- **The Environmental Protection Agency (EPA) is responsible under Part IV of the Environmental Protection Agency Act 1992, for the licensing and regulation of large/complex industrial and other processes with significant polluting potential on the basis of Integrated Pollution Control (IPC).**
- **The Integrated Pollution Control approach to licensing dictates that only one licence will be issued to a facility to control all aspects of air, water, waste and noise pollution.**

Aims of IPC

- ◆ prevent pollution at source
- ◆ minimise releases to the environment
- ◆ apply *BATNEEC principle*
- ◆ apply *polluter pays principle*
- ◆ apply the *precautionary principle*

Agency's Approach

- Process design/redesign to eliminate emissions
- Substitution of materials/solvents
- Waste minimisation by process control, inventory control and end-of-pipe technology
- Onus is on the developer or operator to demonstrate that in selecting a process all avenues for elimination and substitution have been examined and any appropriate measures adopted

IPC Activities to be Licensed

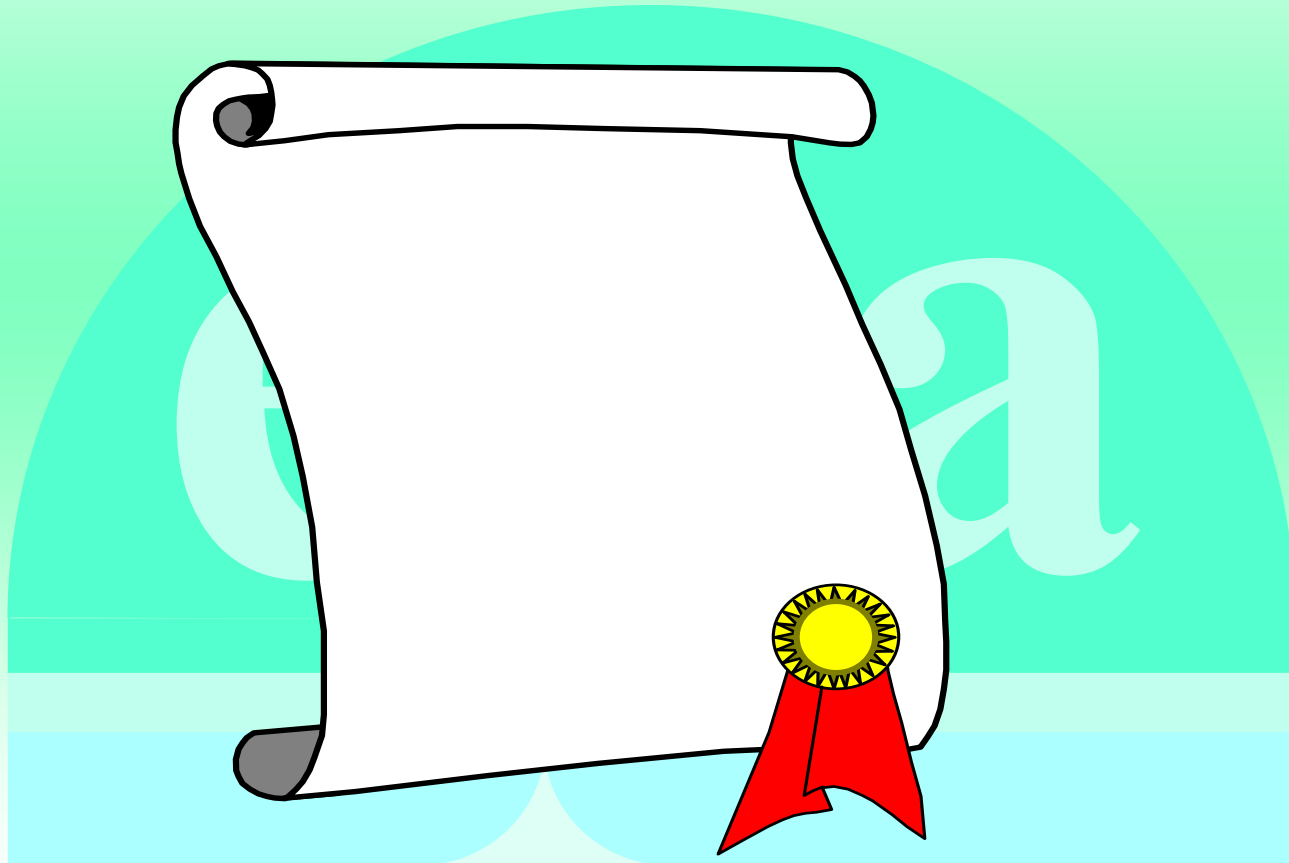
(1st Schedule to EPA Act 1992)

- | | |
|-------------------------|------------------------------------|
| 1 Minerals | 8 Wood, paper, textile,
leather |
| 2 Energy | |
| 3 Metals | 9 Fossil Fuel |
| 4 Mineral Fibres, Glass | 10 Cement |
| 5 Chemicals | 11 Waste |
| 6 Intensive Agriculture | 12 Surface Coating |
| 7 Food and Drink | 13 Other activities |

61 Categories

~800 activities

IPC Licence Reporting Requirements



Report Types

- Monitoring of emissions to atmosphere
- Monitoring of emissions to water
- Surface Water
- Noise monitoring programme
- Complaints (where these arise)
- Annual Environmental Report (AER)
- Test Programme as per Conditions 5.2 & 5.3.
- Programme for public information.
- Residuals Management Plan
- Fire-water retention study.
- Bund integrity assessment.
- Cause, nature and extent of ground water contamination.
- Pollution emission register proposal
- Schedule of Environmental Objectives and Targets
- Environmental management programme proposal.
- Environmental Liabilities Assessment Report



**IPC Licensing
and
Environmental Management
Systems**

Condition 2

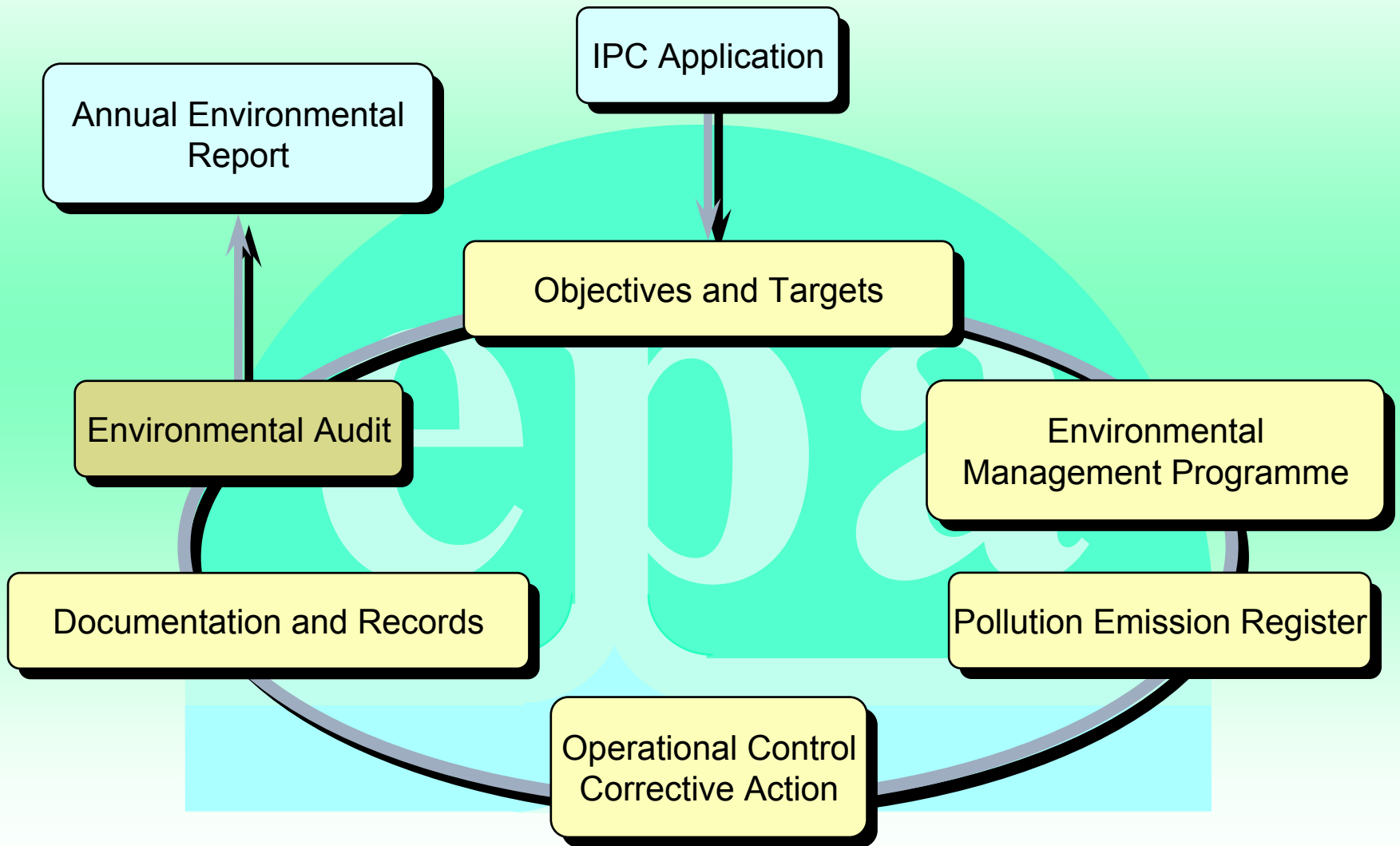
Management of the Activity

- 2.1 The licensee shall establish and maintain an Environmental Management System (EMS) which shall fulfill the requirements of this licence. The EMS shall include as a minimum those elements specified in the Conditions 2.2 to 2.9 below.

Conditions 2.2 to 2.9

- 2.2 Objectives and Targets
- 2.3 Environmental Management Programme (EMP)
- 2.4 Pollution Emission Register (PER)
- 2.5 Documentation
- 2.6 Corrective action
- 2.7 Awareness and Training
- 2.8 Responsibilities
- 2.9 Communications

IPC Environmental Management System



Objectives and Targets

Licence Objectives	Licensee Targets
2.2.1 Process modifications resulting in improved yields, elimination or reduction of wastes or the use of alternative less hazardous materials.	Eliminate all hazardous materials from the process by 2007. Improve recyclability of product to 80% by 2004.
2.2.2 Improved process control (equipment and management) to reduce waste.	Reduce average daily weight of waste to landfill by 10 tonnes (20%) by the end of 2003.
2.2.10 Savings in energy and materials usage	Reduce energy consumption by 15% by 2006 against 2002 figures.

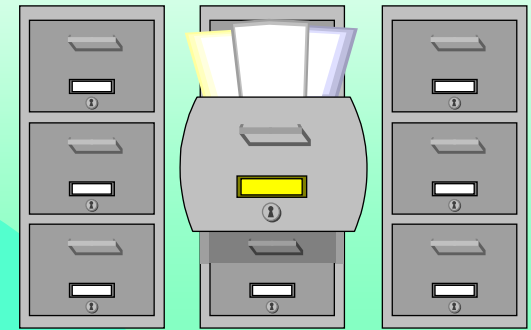
Specified Items in an EMP

- EMP is sometimes used by the Agency as a means to allow a company time to examine alternatives.
- In keeping with BATNEEC, this affords the opportunity to focus on pollution prevention rather than end-of-pipe abatement.
- Agency expects a serious effort.
- If not forthcoming, may decide to review the licence in order to prevent significant environmental pollution .

Records

- Environmental records may include:

- training records;
- audits;
- management reviews;
- records of significant environmental impacts;
- emergency preparedness and response;
- incidents and complaints reports;
- pertinent contractor and supplier information;
- inspection, maintenance and calibration records; and
- process and production information.



IPC Application

Annual Environmental Report

Objectives and Targets

Environmental Audit

Environmental Management Programme

Documentation and Records

Pollution Emission Register

Operational Control
Corrective Action

Annual Environmental Report

- Introduction
- Summary information
 - emissions to atmosphere
 - emissions to waters/sewer
 - waste management
 - noise
 - energy and water consumption
 - environmental incidents and complaints
- Pollution Emission Register
- Environmental Management Programme

IPC Application

Annual Environmental Report

Objectives and Targets

Environmental Audit

Environmental Management Programme

Documentation and Records

Pollution Emission Register

Operational Control
Corrective Action

The Benefit of an EMS

- Structured environmental management tool
- Allows for the preparation and implementation of environmental programmes
- Reduction in emissions
- Waste minimisation
- Improved environmental control
- Cost savings
- Corporate image
- Stakeholder demands
- Market access and security

Environmental Audit

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The logo consists of a large green semi-circle at the top, representing a sun. Below the sun is a light blue horizontal band, and at the bottom is a darker blue horizontal band, representing water. The letters 'epa' are written in a white, elegant, cursive font across the middle of the sun.

Environmental Audit

The environmental audit should:

- Be systematic, objective, periodic and documented.
- Conducted by a multi-disciplinary team.
- Determine conformity with IPC licence conditions.
- Assess the progress of EMP implementation.
- Assess the EMP.

Objectives of an Audit

The objective of an environmental audit is to measure environmental performance. This involves two factors:

- (i) to measure what has been achieved; and
- (ii) to measure the effectiveness of the system or management processes which are, or have been, used to achieve it.

IPC licence audits

- ✉ Systematic examination of an operation.
- ✉ IPC licence is the reference document.
- ✉ Generally conducted annually or at least once every 3 yrs..
- ✉ Independent Lead Auditor.
- ✉ Can be either announced or unannounced.

Scope of the IPC Audit

- General:
 - Any condition of the licence
 - All records and documentation required
 - EMS and EMP
- Site specific areas e.g.:
 - Waste
 - Air emissions abatement and control
 - Operation of the WWTP

EMP review

- Has progress been made against targets?
- Is there a management review of progress with EMP implementation?
- Have subsequent EMP's been drafted in the light of implementation of the previous EMP?
- Highlight positive aspects, principal achievements and performances.

Site Tour

- Site Housekeeping
- Storage facilities
- Bunding
- Monitoring or sampling equipment/access
- Spillage kit
- Evidence of spills
- Alarms
- Number of emission points
- Alterations since last site visit
- Specific improvements
- Noise, odours



Collecting Evidence

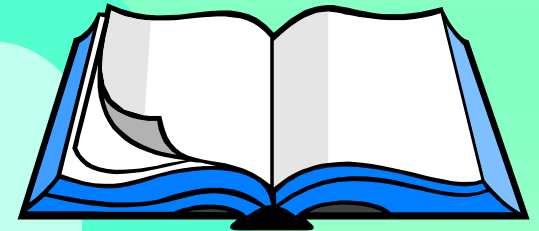
- Interview.
- Examination of documents.
- Observations of activities and conditions in the areas of concern.
- Review procedures and look for evidence of correct implementation.
- Confirm validity of data submitted to the Agency.

Examination of documents

- EMP
- PER
- Public information documentation
- Maintenance register
- Register of Objectives and Targets
- Environmental Policy
- Training records
- Corrective action procedures
- Internal audit reports
- Complaints register
- Calibration register

Examination of documents

- Operating procedures
- Monitoring reports vs. lab reports.
- Waste management register
- Contingency plans
- Organisational charts
- Documentation control procedure



Audit Team meeting

- Agree overall judgement of level of implementation of EMP.
- Draw-up list of non-compliances.
- Draw-up list of observations.

Enforcement Response

Phased response, depending on:

- Impact on the receiving environment;
- Magnitude of the non-compliance ;
- Duration of the non-compliance;
- Compliance history of the licensee.

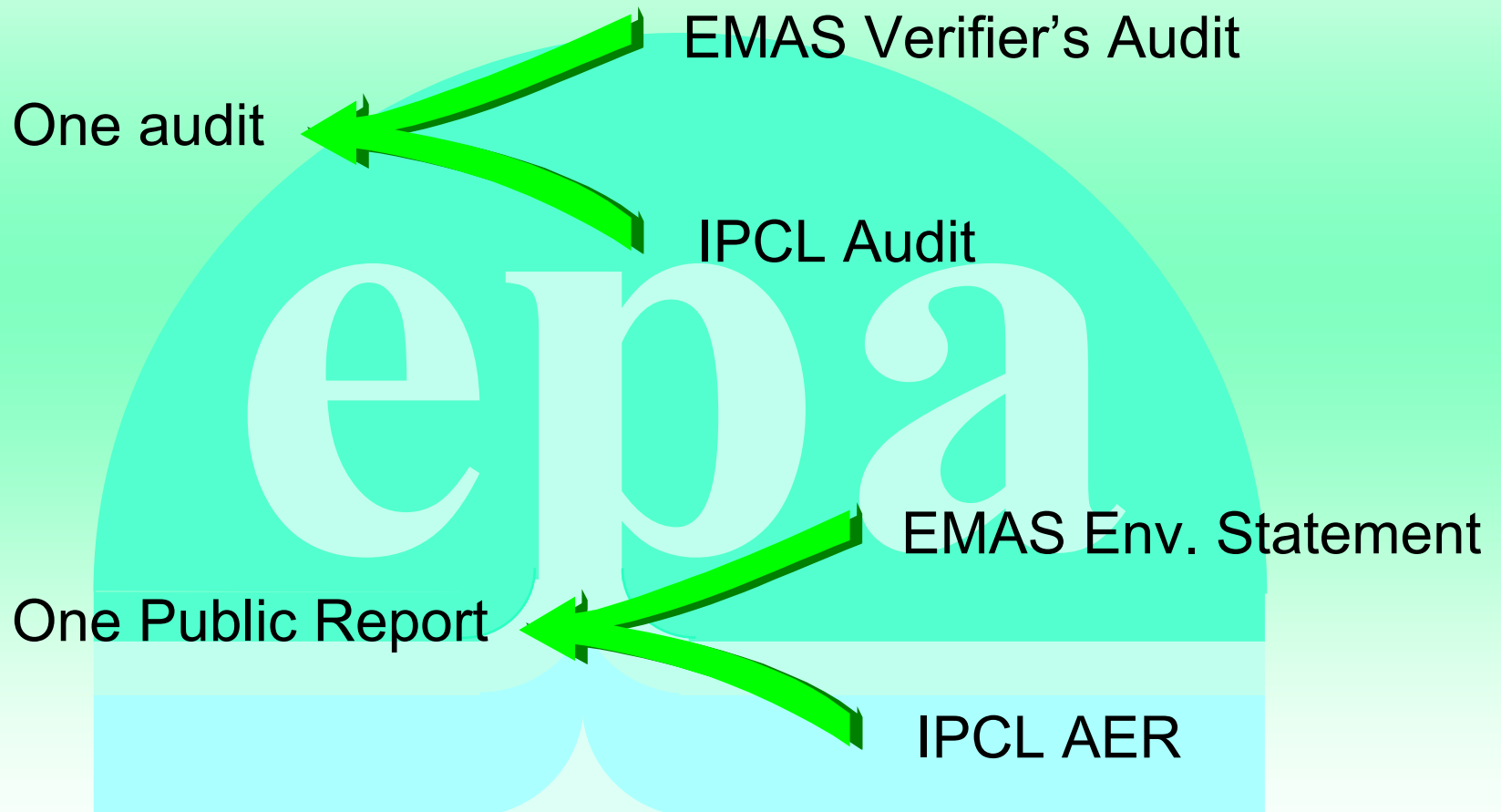
EPA/NAB Co-operation

- Aim: To increase coherence of EMAS regulation and IPC licensing.
- EMAS verifier's audit report accepted in lieu of EPA audit.
- MOU

EMAS / IPC Common Elements

- EMS.
- A requirement to be in compliance with Environmental Regulations.
- Programme for Continual Improvement.
- Public Reporting.
- External Auditing.

Benefits of Co-operation



Eligibility to apply

- Sites must
 - comply with BATNEEC principle,
 - have had two satisfactory audits by EPA.

EPA and NSAI

- Communications ongoing.
- Plan more co-operation

