

Legislative and Licence Reporting Requirements



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Legislative and Licence Reporting Requirements

■ Overview

- Reasons for Monitoring
- Legislative Basis for Monitoring
- EPA Licence Requirements and Aqueous Emissions
- Agency Work to Date in this Area & Findings
- Conclusions



Reasons for Monitoring

- Legislative Requirement
- EPA Licence Requirements
- Prevent of environmental impact
- Providing public reassurance
- Benchmark sites within a sector or class of activity
- Identification of process problems
- Testing the efficiency of abatement systems
- Optimising process in terms of emissions
- Planning and managing increases in efficiencies



Legislative Basis for Monitoring

■ The IPPC Directive

■ Article 9: Conditions of the Permit

The permit shall contain

- Emission limit values
- Monitoring requirements
- Specify measurement methodology & frequency
- Obligation to supply competent authority with data



■ Article 14: Compliance with Permit Conditions

Member states shall take measures ensure

- *Operator regularly informs competent authority of results of monitoring, incidents, releases*

Legislative Basis for Monitoring

■ EPA Acts 1992 and 2003

■ Section 86 requires

Conditions attached to a licence shall specify

- Monitoring requirements – including taking and analysis of samples
- Specify methodologies
- Frequency of monitoring
- Keep records
- Inform the Agency – monitoring, evaluation and compliance

Conditions attached to a licence may specify

- Monitoring of ambient environment

■ Waste Management Acts 2001 to 2010

- Section 41 requirements (*addition: may specify quality control procedures*)

Legislative Basis for Monitoring

■ Air Related Directives:

- Waste Incineration Directive (2000/76/EC)
 - Requirements re monitoring
- Large Combustion Plant Directive (2001/80/EC)
 - Combustion plants with thermal input >50 megawatt
- Solvents Directive
 - Monitoring obligations

■ PRTR Regulation (EC) No. 166/2006 (S.I. 123 of 2007)

- Very specific requirements in relation to quality (Article 9) and methods

Legislative Basis for Monitoring

■ Industrial Emissions Directive

- End 2012
- Amalgamate 7 Directives into 1

In relation to Monitoring & Quality:

- Similar requirements in relation to monitoring methodologies, frequency etc.
- Appropriate periodic groundwater and soil monitoring
- Monitoring based on Best Available Techniques (BAT) conclusions
- BREF: BAT conclusions now binding

Legislative Basis for Monitoring

- **BREF Guidance** (developed as required by IPPC Directive)
 - Reference Documents for BAT notes
 - BREF Guidance on the General Principles of Monitoring
- **Key considerations in relation to monitoring that should be considered by the permit writer:**
 - Why monitor
 - Who carries out the monitoring
 - What and How to monitor
 - Expressing ELV's and Monitoring Results
 - Monitoring Timing Considerations
 - How to deal with uncertainties
 - Monitoring Requirements

Legislative Basis for Monitoring

- Monitoring BREF also includes guidance on:
 - Accounting for Total Emissions (including LOD/LOQ)
 - Data Production Chain (Sampling → reporting) : deals with the comparability and reliability of data through an adequate data production chain at all stages
 - Different Approaches to Monitoring e.g. direct, mass balance, calculation
 - Compliance Assessment: compliant data and uncertainty
 - Reporting of Monitoring Results: 'audiences'
 - Costs
 - Annexes - CEN Standards for emissions

EPA Licence Requirements & Aqueous Emissions

➤ Licence Requirements Cover (Legal Document)

- Staff Training
- Maintenance
- Calibration
- Methods
 - Standard
 - Performance characteristics
 - Quality control
 - Matrix suitability
- Competency of subcontracted lab
- Interpretation
- Notification



EPA Licence Requirements & Aqueous Emissions

Typical Licence Requirements:

➤ Definitions:

■ Standard method

A National, European or internationally recognised procedure (e.g. I.S. EN, ISO, CEN, BS or equivalent); or an in-house documented procedure based on the above references; a procedure as detailed in the current edition of “Standard Methods for the Examination of Water and Wastewater” (prepared and published jointly by A.P.H.A., A.W.W.A. & W.E.F.), American Public Health Association, 1015 Fifteenth Street, N.W., Washington DC 20005, USA; or an alternative method as may be agreed by the Agency.

■ Sample(s)

- Unless the context of this licence indicates to the contrary, the term samples shall include measurements taken by electronic instruments.

EPA Licence Requirements & Aqueous Emissions

■ Condition 2: Management Conditions

- The licensee shall ensure that personnel performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and experience as required and shall be aware of the requirements of this licence.
- The licensee shall **establish and maintain** procedures for identifying training needs, and for providing appropriate training, for all personnel whose work can have a significant effect upon the environment. Appropriate records of training shall be maintained
- The licensee shall **establish and maintain** a programme for maintenance of all plant and equipment based on the instructions issued by the manufacturer/supplier or installer of the equipment. Appropriate record keeping and diagnostic testing shall support this maintenance programme. The licensee shall clearly allocate responsibility for the planning, management and execution of all aspects of this programme to appropriate personnel).

EPA Licence Requirements & Aqueous Emissions

■ Condition 3: Infrastructure & Operation

- The licensee shall install on all emission points such sampling points or equipment, including any data-logging or other electronic communication equipment, as may be required by the Agency. All such equipment shall be consistent with the safe operation of all sampling and monitoring systems.
- In the case of composite sampling of aqueous emissions from the operation of the installation/facility, a separate composite sample or homogeneous sub-sample (of sufficient volume as advised) shall be refrigerated immediately after collection and retained as required for EPA use.
- The licensee shall clearly label and provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency. The requirement with regard to off-site points is subject to the prior agreement of the landowner(s) concerned

EPA Licence Requirements & Aqueous Emissions

■ Condition 4: Interpretation

- Emission limit values for emissions to sewer/waters in this licence shall be interpreted in the following way:

- Continuous Monitoring

- No flow value shall exceed the specific limit.
 - No pH value shall deviate from the specified range.
 - No temperature value shall exceed the limit value.

- Composite Sampling

- No pH value shall deviate from the specified range.
 - For parameters other than pH and flow, eight out of ten consecutive composite results, based on flow proportional composite sampling, shall not exceed the emission limit value. No individual results similarly calculated shall exceed 1.2 times the emission limit value.

- Discrete Sampling

- For parameters other than pH and temperature, no grab sample value shall exceed 1.2 times the emission limit value

EPA Licence Requirements & Aqueous Emissions

■ Condition 6: Control & Monitoring

- The licensee shall carry out such sampling, analyses, measurements, examinations, maintenance and calibrations as set out below and as in accordance with *Schedule C: Control & Monitoring*, of this licence.
 - Analyses shall be undertaken by competent staff in accordance with documented operating procedures.
 - Such procedures shall be assessed for their suitability for the test matrix and performance characteristics shall be determined.
 - Such procedures shall be subject to a programme of Analytical Quality Control using control standards with evaluation of test responses.
 - Where any analysis is sub-contracted it shall be to a competent laboratory.

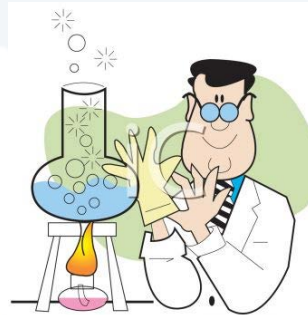


EPA Licence Requirements & Aqueous Emissions

The licensee shall ensure that:

- sampling and analysis for all parameters listed in the Schedules to this licence; and
- any reference measurements for the calibration of automated measurement systems;

shall be carried out in accordance with CEN-standards. If CEN standards are not available, ISO, national or international standards that will ensure the provision of data of an equivalent scientific quality shall apply.



EPA Licence Requirements & Aqueous Emissions

- All automatic monitors and samplers shall be functioning at all times (except during maintenance and calibration) when the activity is being carried on unless alternative sampling or monitoring has been agreed in writing by the Agency for a limited period. In the event of the malfunction of any continuous monitor, the licensee shall contact the Agency as soon as practicable, and alternative sampling and monitoring facilities shall be put in place. The use of alternative equipment, other than in emergency situations, shall be as agreed by the Agency.

EPA Licence Requirements & Aqueous Emissions

- Monitoring and analysis equipment shall be operated and maintained as necessary so that monitoring accurately reflects the emission/discharge (or ambient conditions where that is the monitoring objective).
- All treatment/abatement and emission control equipment shall be calibrated and maintained in accordance with the instructions issued by the manufacturer/supplier or installer.
- The frequency, methods and scope of monitoring, sampling and analyses, as set out in this licence, may be amended with the agreement of the Agency following evaluation of test results.

Agency Work to Date and Findings

- Letter to all licensees Feb 2009
 - Reminder of Licence requirements

- Assessment during Audit and Inspections in 2009 (+2010)

■ ISSUES:

■ Calibration & Maintenance

- Laboratory equipment not part of a calibration programme e.g. pipettes, ovens, digestion blocks and balances.
- Insufficient number of calibration standards used in method set up.
- No maintenance programme for lab equipment.

■ Internal Quality Control

- No quality system in place
- No programme of analytical quality control (AQC) in laboratory.
- No blank/duplicate sample analysed during procedure.

Agency Work to Date and Findings

■ Subcontracted laboratories

- No evidence that external laboratory is accredited.
- Subcontracted laboratory not evaluated in terms of their quality system

■ Procedures & Training

- Determination of the suitability of test matrix had not been completed.
- Accuracy, precision and uncertainty of measurement not established i.e. Performance Characteristics.
- Training procedure for lab staff not in place.
- CEN/standard method not in use.

■ QA Scheme

- No participation in external proficiency scheme.
- Failures in intercalibration scheme results not being investigated.

Agency Work to Date and Findings

- Letter to licensees November 2009 outlining issues
- Guidance on EPA Website
(<http://www.epa.ie/whatwedo/advice/envmon/>)
- Two data quality conferences in this year
- Website will be further developed next year

Conclusions

- Familiarity with your licence requirements
- Sub contracted laboratories
 - Quality of sub contracted work must meet standards required by the licence
 - Monitoring standards
 - Equipment maintenance and calibration
 - Quality control & method performance characteristics
 - Audit subcontracted labs
- Agency – Licensee Communication
 - Utilise the Agency guidance available and
 - Consult with the Agency/Inspector
 - The Agency uses its interaction with licensees to increase its knowledge base

epa
Environmental Protection Agency

Headquarters
P.O. Box 1000
Johnstown Castle Estate
County Wexford
Ireland

INTEGRATED POLLUTION PREVENTION AND
CONTROL REVISED LICENCE

Licence Register Number:	751
Licencee:	Smurfit Europe Limited
Location of Installation:	Beltrove Slieveone County Wexford

Legislative and Licence Reporting Requirements

■ Thank you

