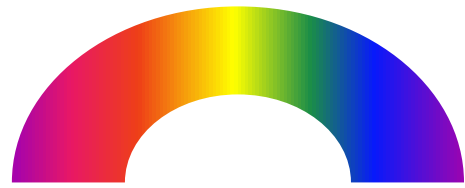


# Training in Biological Wastewater Treatment

*Enterprise  
Environmental*

*"a specialist environmental monitoring service"*



**JKENVIRONMENT LIMITED**  
**Environmental Consultants**

## **Aerobic Biological Treatment Processes**

**27<sup>th</sup> February 2018**

## **The Activated Sludge Process**

**28<sup>th</sup> February 2018**

**These one-day courses can be taken separately or combined as a two day course.**

The requirement for training and staff updating in the understanding, management and operation of biological wastewater systems is ongoing and applies to industry and local authorities alike. Industrial wastewater discharges have long been subject to licensing under the Water Pollution Acts (1977 – 1990) and Integrated Pollution Prevention and Control (IPPC) legislation (arising from Directive 96/61/EC and the Environmental Protection Agency Act, 1992). More recently, the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007) have introduced an authorisation system for all local authority wastewater discharges, the EPA being designated as the relevant competent authority.

### **OBJECTIVES**

The course will provide a basic understanding of the principles and practice of the various aerobic biological wastewater treatment processes. Some previous knowledge is desirable but not essential as this is a basic introductory course.

The principal course objectives are to provide

- an understanding of the practical design, operation and monitoring of biological wastewater treatment systems
- an appreciation of the capability of particular systems to achieve compliance with existing and likely future legislation and licensing

### **WHO SHOULD ATTEND**

Those involved in plant operation and maintenance, laboratory analysis of wastewater parameters and in the general management, supervision and control of biological wastewater treatment plants.

### **OBJECTIVES**

This course will introduce participants to the skills required for efficient design, operation and troubleshooting of the activated sludge process – the most widely applied technology for biological wastewater treatment. A knowledge of the basics of aerobic biological treatment processes is assumed.

The principal course objectives are to provide

- an insight into the more complex aspects of the activated sludge process
- an understanding of more recent developments, including membrane technologies, granular activated sludge and the removal of nutrients

### **WHO SHOULD ATTEND**

Those who already have an understanding of the basics of biological wastewater treatment but wish to have a more in-depth knowledge of the design, operation and performance capabilities of the activated sludge process.

### **Course Tutors and Contact Details**

**Joe McNamee** (Enterprise Environmental)

Phone: 087 6488690

e-mail: [joemcnee1@gmail.com](mailto:joemcnee1@gmail.com),

or visit: [www.enterpriseenvironmental.com](http://www.enterpriseenvironmental.com)

**John Kilgallon** (JKENVIRONMENT LTD.)

Phone: 087 2832385

e-mail: [jkenvironment@eircom.net](mailto:jkenvironment@eircom.net)

Both formerly environmental consultants with Enterprise Ireland and its precursor organisations Forbairt/Eolas/IIRS.

# PROGRAMMES

## Aerobic Biological Treatment Processes

27<sup>th</sup> February 2018

09.00	REGISTRATION AND TEA/COFFEE
09.30	PRELIMINARY TREATMENT AND DEFINITION OF TERMS
11.00	COFFEE/DISCUSSION
11.30	BASIC PRINCIPLES OF AEROBIC BIOLOGICAL PROCESSES
13.00	LUNCH
14.00	TREATMENT PLANT DESIGN WITH WORKED EXAMPLE
15.00	COFFEE
15.15	PLANT MONITORING AND CONTROL STRATEGIES
16.15	DISCUSSION AND CLOSE

## The Activated Sludge Process

28<sup>th</sup> February 2018

09.00	REGISTRATION AND TEA/COFFEE
09.30	BIOLOGICAL NITRIFICATION AND DENITRIFICATION
11.00	COFFEE/DISCUSSION
11.30	PROCESS DESIGN AND VARIATIONS (SBR, MEMBRANES, P REMOVAL AND GRANULAR SLUDGE PROCESSES)
13.00	LUNCH
14.00	TROUBLESHOOTING AND PROBLEM-SOLVING METHODOLOGIES
15.00	COFFEE
15.15	MICROBIOLOGICAL ASPECTS AND MICROSCOPIC EXAMINATION
16.15	DISCUSSION AND CLOSE

**VENUE:** Croke Park Conference Centre, Hogan Stand Meeting Room, Level 6 (Entry via Jones's Road). For directions, parking, accommodation etc., please see [www.crokepark.ie](http://www.crokepark.ie)

**FEES:** €395 per course, including documentation, lunch and refreshments. For those wishing to attend both courses, a reduced combined fee of €595 will apply. VAT is not chargeable.

### BOOKING FORM

By Post/Fax to: Joe McNamee, Enterprise Environmental, Unit 1D, M4 Interchange Park, Celbridge, Co. Kildare.  
By e-mail (with details as below) to: [joemcnee1@gmail.com](mailto:joemcnee1@gmail.com) Phone: 0876488690 Fax: 01 6279935

Required Course (Please indicate): Aerobic Biological Treatment Processes (27<sup>th</sup> Feb 2018).....   
The Activated Sludge Process (28<sup>th</sup> Feb 2018).....

Payment Method: Invoice (Purchase Order required) for sum of €..... or  
SEPA transfer: (Bank details upon request) sum of €..... or  
Fee enclosed €..... by cheque, made payable to Enterprise Environmental.

Terms and Conditions: No fee will be charged for cancellations made up to 10 days prior to the event (payments will be refunded). Cancellations after this period will be liable for the full fee (substitutions will be allowed). *In the event that the course has to be cancelled, all course fees will be refunded. Enterprise Environmental and JKENVIRONMENT LIMITED will accept no liability for any additional costs, such as hotel bookings etc.*

FIRST NAME..... SURNAME.....

ORGANISATION..... POSITION.....

ADDRESS.....

PHONE..... e-mail.....

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**Joe McNamee**

*Enterprise*

*Environmental*

*"a specialist environmental monitoring service"*

**John Kilgallon**



**JKENVIRONMENT LTD**  
Environmental Consultants

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## **Two One-day Courses on Biological Wastewater Treatment**

**27<sup>th</sup> & 28<sup>th</sup> of February 2018, Croke Park Conference Centre.**

The requirement for training and staff updating in the understanding, management and operation of biological wastewater systems is ongoing and applies to industry and local authorities alike. Industrial wastewater discharges have long been subject to licensing under the Water Pollution Acts (1977 – 1990) and Industrial Emissions/Integrated Pollution Prevention and Control (IPPC) legislation (arising from Directive 96/61/EC and the Environmental Protection Agency Act, 1992). More recently, the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007) have introduced an authorisation system for all local authority wastewater discharges, the EPA being designated as the relevant competent authority.

The courses are being jointly presented by Joe McNamee (Enterprise Environmental) and John Kilgallon (JKENVIRONMENT LTD.).

Please find our Brochure and a client list attached. We would be obliged if you would circulate these details to those in your organisation who might be interested in attending.

### **Course Tutors:**

**John Kilgallon (JKENVIRONMENT LTD.):** Chemical Engineer with many years experience in the Environment Unit of IIRS, Eolas, Forbairt and Enterprise Ireland. Left Enterprise Ireland in December 2006 and established JKENVIRONMENT LTD. Specialises in Wastewater Treatment, Waste Minimisation, Eco-efficiency and Training, together with a range of environmental activities.

**Contact Details:** Phone: 087 2832385 e-mail: [jkenvironment@eircom.net](mailto:jkenvironment@eircom.net)

**Joe McNamee (Enterprise Environmental):** Environmental analyst and consultant in the area of waste water treatment (operation and troubleshooting). Many years experience with Dublin County Council, IIRS, Eolas, Forbairt and Enterprise Ireland. Left Enterprise Ireland in March 2007 and established Enterprise Environmental. Provides a range of Specialist Environmental Monitoring Services, Consultancy and Training.

**Contact Details:** Phone: 087 6488690 e-mail: [joemcnee1@gmail.com](mailto:joemcnee1@gmail.com)  
Web: [www.enterpriseenvironmental.com](http://www.enterpriseenvironmental.com)

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**Joe McNamee**

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**John Kilgallon**



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## **Client List**

### **Previous Presentations of Similar Courses – by John Kilgallon and Joe McNamee**

2017	Croke Park Conference Centre (Mar) Training in Biological Wastewater Treatment.
2016	Croke Park Conference Centre (Feb) Training in Biological Wastewater Treatment.
2015	ABP Cahir (on-site course)
2015	Croke Park Conference Centre (Feb) Training in Biological Wastewater Treatment.
2014	Croke Park Conference Centre (Feb) Training in Biological Wastewater Treatment.
2013	ABP Cahir (on-site course) Croke Park Conference Centre (Feb) Training in Biological Wastewater Treatment.
2012	Croke Park Conference Centre (March) Training in Biological Wastewater Treatment. Glanbia, Ballyragget Environmental Protection Agency Lakeland Dairies, Bailieboro
2011	Millipore Ireland Ltd, Carrigtwohill. Croke Park Conference Centre (Feb and October), Training in Biological Wastewater Treatment, Kildare Co Co, Training in Urban Wastewater Treatment.
2010	Croke Park Conference Centre, Training in Urban Wastewater Treatment.
2009	Shannonside Milk Products, Ballaghaderreen. Environmental Protection Agency.
2008	Glanbia, Ballyragget. Environmental Protection Agency.
2007	Environmental Protection Agency.