2017 Training Courses from the leaders in steam and energy solutions
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Welcome

Welcome to the Spirax Sarco 2017 training brochure.

2016 has certainly been a year of change as UK, European and world events have created new challenges and provoked potential new ways of working.

Change forms an integral part of the learning process. Providing opportunities for people to learn and develop promotes new ways of thinking and acting and the success of any training is being able to see the longer term effect of behavioural change both within the company and in the individual. The investment in learning is now more crucial than ever to ensure your staff remain competent in the jobs they are performing.

We are also looking to make changes within the Training Centre, including further improvements to the courses, development of new courses and by recruiting an additional trainer so we can provide more of the courses that you are asking for. Watch this space for further updates.

I would like to take this opportunity to thank you for continuing to make the investment in your staff and trusting us to deliver high quality and relevant training.

Wishing you a very successful 2017.

Sally O’Connell
UK Steam Technology Centre Manager
Our training pedigree and facilities

Our training courses offer a unique opportunity to learn with the leading experts in steam technology. We are known for our quality products and knowledgeable approach, but it’s our people who make us different. They have an unparalleled understanding of the application of steam across a wide range of industries which enables us to ensure our courses are:

• Current and up to date
• Relevant to your sector

By providing the skills and knowledge that can be used back in your workplace, we can help you to:

• Maximise the efficiency of your steam systems
• Increase steam safety
• Optimise performance
• Demonstrate competence and understanding
What our customers think

We like to hear what our customers say about the courses they have undertaken and how they will be using their new skills and knowledge. Here is a selection of feedback. Let us know your thoughts.

Perfect
Excellent instructor
Really well presented
Excellent
Exactly what was expected
Very good
Very well delivered
Informative
Feel more confident
Very thorough
Brilliant
Very helpful
Rewarding competence

We are frequently asked how you can demonstrate that your team are competent to do their job. We work with a selection of companies to accredit our courses to help you fulfil this need.

**CITY & GUILDS**
City & Guilds are the UK’s leading vocational awarding body. Our Steam Plant Maintenance course is accredited with them to provide you with the reassurance it is of the highest quality. We are also working on the formal accreditation of a number of our other courses throughout 2017.

**COMBUSTION ENGINEERING ASSOCIATION (CEA)**
The CEA is an educational charity which aims to promote the science of combustion engineering. We are an approved training provider of the Boiler Operator Accreditation scheme (BOAS) for boiler operators and managers.

**CONTINUING PROFESSIONAL DEVELOPMENT**
We are committed to the principles of continual learning and demonstration of best practise. The majority of our courses are therefore also available as evidence of continuing professional development (CPD) through the Chartered Institution of Building Services Engineers (CIBSE).
Introducing our Training Centre

Training courses are delivered at our state of the art training facility in Cheltenham. We have a fully working boiler house, demonstration and practical areas which allow delegates the chance to get hands on and put the theory into practice.

Take a virtual tour of the centre at sxscom.uk/STCTour

REASONS TO TRAIN WITH US

1. **Expert Trainers**
   Our trainers have the knowledge and experience to understand your challenges, ensuring content is relevant, up to date and practical, wherever possible.

2. **Unrivalled Reputation**
   We have an unrivalled reputation for the quality of our training.

3. **High Calibre Facilities**
   Our extensive training facilities including live boiler house and practical areas allow safe learning in a controlled environment.

4. **Tailored Solutions**
   We also offer onsite training and bespoke training tailored to suit your requirements.

5. **Widest Range Of Courses**
   A range of courses to suit each level.
Boiler Operator training path

Here is the potential path of a steam boiler operator with no previous experience of steam systems.

**STEP ONE**
Basic introduction to steam systems
See course B1 | Page 16

**STEP TWO**
Introductory course in boiler operation
See course D6 | Page 22

**STEP THREE**
Accredited course in boiler operation and boiler house plant
See course D6A | Page 26-27

**STEP FOUR**
Accredited refresher course in boiler operation and boiler house plant
See course D6AR | Page 28-29
Onsite Training Offering

*Can’t attend our training centre? Don’t worry we can come to you.*

For the majority of our courses we can offer delivery of the course at your premises.

Just look out for the onsite icon next to the course to see which ones are available onsite.

**HOW DOES IT WORK?**

**Simple:** we pack everything up and bring it to you! However, please book early because our trainers are in demand!

**WHAT DO YOU NEED TO DO?**

Arrange a suitable training room and facilities and gather your delegates together.

**HOW IS THIS PRICED?**

We need a minimum of five delegates to deliver at your site. Speak to us with details of delegate numbers and location for the course and we are happy to provide a quotation.

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**BESPOKE TRAINING**

For something a little more specific to your requirements, we are also able to tailor the majority of courses or create a bespoke course specifically designed for your requirements.

Speak to us about your requirements and we will put together a suitable proposal and transparent costings.
Building the case for investing in training

Training should always be considered an investment but sometimes requesting the funds for your plans is not always straightforward. So to help you secure your budget here are the key reasons for investing in training. You can find more detailed information on our website.

- Improves staff retention and motivation
- Provides the knowledge for your team to work safely
- Allows you and the team to keep up to date
- Upskills your workforce to create a diverse skill set
- Increases product productivity
- Promotes higher levels of customer satisfaction
- Specific job requirement e.g. boiler operator’s and BOAS
- Increases your competitive advantage
- You can attract the best talent in the marketplace

And if that hasn’t persuaded you then consider this quote by the late American author and motivational speaker, Zig Ziglar.

“"The only thing worse than training an employee and having them leave, is to not train them, and have them stay.""
In the (steam) pipeline

We are working on some new courses for release during 2017 but would love to hear about your current hot topic, we may be able to help.

Keep an eye on our website for more information and for the latest news sign up to receive our Training Newsletter at sxcom.uk/stcsubscription
Correspondence courses

Did you know we also provide some complimentary learning support materials?

Our comprehensive correspondence courses are available in the following subjects:

**AUTOMATIC CONTROLS - AN INTRODUCTION**
Providing a basic introduction to automatic controls, with specific emphasis on temperature control.

**HOT WATER HEATING**
Focusing on an important part of the building services package - the hot water heating system. This course broadly covers some aspects of its design and function.

**STEAM UTILISATION**
A comprehensive course covering the properties of steam, making the best use of steam and steam plants and understanding how to become more efficient.

Each course is stand alone but they do complement the scheduled courses on offer and individuals may choose to study before attendance.

If you would like to register for one of these courses, visit our website at sxscom.uk/SpiraxTraining and complete the registration form.
Our Training Course portfolio

Our courses are structured by category as follows:

NEW TO STEAM
For those needing the underpinning knowledge and introduction to steam and boilers.

BOILER HOUSE
Covering all aspects of the boiler house, safety and efficiency from fundamental level through to the BOAS accreditation.

MAINTENANCE
Comprehensive maintenance training to help you cut costs and improve the efficiency of your steam system.

SPECIALIST
A suite of specialist courses covering key topics affecting the steam and energy industry aimed at helping improve efficiency and cost savings.

Whilst courses may fall into more than one category we feel these make it easier for you to locate the course most suitable for your requirements.

On the following pages you will find a detailed description about each course, together with dates and prices. For further information please visit our website which will also be updated throughout the year with additional course dates and any new courses we launch.
## Icon key

**NEW TO STEAM**
For those needing the underpinning knowledge and an introduction to steam and boilers.

**BOILER HOUSE**
Covering all aspects of the boiler house, safety and efficiency from a fundamental level through to the BOAS accreditation.

**MAINTENANCE**
Comprehensive maintenance training to help you cut costs and improve the efficiency of your steam system.

**SPECIALIST**
A suite of specialist courses covering key topics affecting the steam and energy industry aimed at helping improve efficiency and cost savings.

**ONSITE**
We can deliver this course at your site.

**ACCREDITATION**
This course provides an industry recognised accreditation.

**PROGRESSION**
This course is part of an overall training path.

**CPD POINTS**
Providing you with evidence of continuing professional development.

**BESPOKE TRAINING**
The content can be tailored to your specific requirements when delivering at your site.

**REVISED**
To indicate when something has recently changed in a course.
NEW TO STEAM COURSES
Introduction to Steam and Condensate Systems

WHO IS IT FOR?
Anyone requiring an appreciation of steam and condensate systems and factors affecting their operation.

WHAT IS IT ABOUT?
This course provides a broad understanding of the purpose and safe operational requirements of steam and condensate systems and factors affecting their performance and plant output.

COURSE OBJECTIVES
By the end of the course delegates will be able to:

• Understand the fundamentals of steam and its uses
• Understand why condensate is formed, how and why it is removed and its value
• Know the major components of a steam and condensate system
• Understand the importance and relevance of correct pipe sizing
• Identify best practice in steam installation

Really good introduction to how the different components work and why they are needed.
Steam Boiler Plant Fundamentals (Shell Boiler)

WHO IS IT FOR?
Anyone involved in the planning or upgrading of a boiler and those responsible for the day to day running of steam boilers – large and small. It is also relevant for those needing an overview of how a boiler works or as a pre-cursor to the BOAS course.

WHAT IS IT ABOUT?
This course provides an understanding of the wet side of the boiler and outline trends in the management and control of boiler plant in order to achieve high levels of efficiency and safety with smooth operation.

COURSE OBJECTIVES
By the end of the course delegates will be able to:

- Identify major types of boilers
- Understand the boiler fittings and their use
- Know the types of daily/weekly tests recommended
- Understand elements of feedwater treatment, deaeration and storage
- Understand boiler water level control and alarms
- Understand blowdown controls, vessels and pits
- Appreciate the benefits of heat recovering systems and energy management
- Understand the requirements of efficient best practice including BG01 (‘Guidance on Safe Operation of Boilers’) and the HSE INDG436 (‘Safe Management of Industrial Steam and Hot Water Boilers’)
- Understand how boilers produce steam and how this can affect other areas of the steam plant

This course is also available specifically for water tube boilers. Please ask for further details (ref: D6WT).

“ It has given me a good understanding of boiler plant fundamentals that I will be able to apply at work. ”

DURATON
2 DAYS

DATES
11-12th January
24-25th January
27-28th February
28-29th March
19-20th April
3rd-4th May
16-17th May
1st-2nd June
28-29th June
5-6th July
26-27th July
16-17th August
30th - 31st August
13-14th September
3rd-4th October
30th-31st October
14-15th November
13-14th December

COST
£650+VAT

COURSE REF
D6S

New To Steam Courses 2017
What type of boiler do I have?

We often ask our customers what type of boiler they have, particularly when confirming their BOAS places as this is critical information. For those less technically inclined here is our guide to the difference between shell (cat 2) and water tube (cat 3) boilers.

**SHELL (FOR BOAS DEFINED AS CATEGORY 2)**

Shell boilers may be defined as those boilers in which the heat transfer surfaces are all contained within a steel shell.

Shell boilers may also be referred to as ‘fire tube’ or ‘smoke tube’ boilers. They operate by sending the products of combustion through a series of boiler tubes, which in turn transfers the heat to the surrounding boiler water.

Several different combinations of tube layout are used in shell boilers, each set of tubes being referred to as a pass so you may hear a boiler referred to as a three-pass or four-pass. The more passes a boiler has the higher the heat extraction rate and efficiency.
Water tube boilers differ from shell type boilers in that the water is circulated inside the tubes, with the heat source surrounding them. Heated water rises and can then be reheated by a superheater to achieve higher steam temperatures.

Water tube boilers typically handle operating pressures (up to 160bar) and are frequently used in high steam demand industries such as power stations or those with fluctuating steam demand.

If you are still not sure then let us know and we can discuss further.
Steam Boiler Plant Fundamentals (Shell Boiler)

WHO IS IT FOR?
Anyone involved in the planning or upgrading of a boiler and those responsible for the day to day running of steam boilers – large and small. It is also relevant for those needing an overview of how a boiler works or as a pre-cursor to the BOAS course.

WHAT IS IT ABOUT?
This course provides an understanding of the wet side of the boiler and outlines trends in the management and control of boiler plant in order to achieve high levels of efficiency and safety with consistent operation.

COURSE OBJECTIVES
By the end of the course delegates will be able to:

- Identify major types of boilers
- Understand the boiler fittings and their use
- Know the types of daily/weekly tests recommended
- Understand elements of feedwater treatment, deaeration and storage
- Understand boiler water level control and alarms
- Understand blowdown controls, vessels and pits
- Appreciate the benefits of heat recovering systems and energy management
- Understand the requirements of efficient best practice including BG01 (‘Guidance on Safe Operation of Boilers’) and the HSE INDG436 (‘Safe Management of Industrial Steam and Hot Water Boilers’)
- Understand how boilers produce steam and how this can affect other areas of the steam plant

This course is also available specifically for water tube boilers. Please ask for further details (ref: D6WT).

A professional course from start to finish
Introduction to Boiler House Risk Assessment for Managers

WHO IS IT FOR?
Anyone involved in the safe operation and assessment of a boiler house, boiler house operatives and managers.

WHAT IS IT ABOUT?
A practical course designed to provide an overview of the requirements of INDG436: Safe Management of industrial steam and hot water boilers in terms of risk assessments specific to the boiler house, the requirements of the legislation and a practical related activity using our boiler house.

COURSE OBJECTIVES
By the end of the course delegates will be able to:

- Understand the principles of risk assessment
- Complete the risk assessment process
- Know the definition of a competent person
- Identify and know the requirements of INDG436 and associated legislation
- Know the specific requirements for conducting a boiler house risk assessment
Boiler House Water Treatment

WHO IS IT FOR?
Anyone involved in the day to day running of steam boilers and utility plant including site technicians, boiler operators, supervisors, plant engineers and maintenance engineers.

WHAT IS IT ABOUT?
This course is designed to explain why water treatment of steam plant helps ensure it operates safely and efficiently. The aim is to provide delegates with knowledge and information to help manage and treat the system effectively.

COURSE OBJECTIVES
By the end of the course delegates will be able to:
• Understand the importance of managing water treatment operations
• Understand the importance of water treatment guidelines
• Design and implement schemes to prevent scale, corrosion and fouling
• Understand chemical dosing requirements
• Know how to put a boiler water treatment strategy in place

ADDITIONAL INFORMATION
This course is run in collaboration with SUEZ environnement’s Water Conditioning Services UK division (formerly B&V Group).
**Boiler Plant Regulations and Guidelines**

**WHO IS IT FOR?**

Anyone seeking an understanding of the regulations and guidelines relating to steam and steam boiler plant.

**WHAT IS IT ABOUT?**

This course provides a broad overview of legislation, guidance and best practice within the wet side of the boiler and in steam systems to help users understand what is expected of them.

**COURSE OBJECTIVES**

By the end of the course delegates will be able to:

- Understand the uses and benefits of steam
- Understand pressure and temperature of steam
- Appreciate general steam system safety
- Have an overview of pressure system/pressure equipment requirements
- Know the selected standards – boilers and water treatment
- Understand the requirements of BG01 and HSE INDG436
- Appreciate the importance of risk assessment, competence, training and supervision
Boiler Operation Accreditation Scheme (BOAS) - Operator and Manager

WHO IS IT FOR?

This course is designed for practicing boiler house operatives or those responsible for managing a boiler house and its operators.

WHAT IS IT ABOUT?

The Boiler Operation Accreditation Scheme (BOAS) provides national accreditation for industrial boiler operators and boiler plant managers. The BG01 guidelines recommend that all competent persons and owners/managers achieve the national industry standards which form part of the BOAS scheme.

Spirax Sarco is a licensed and approved BOAS training provider.

This course provides preparation for undertaking the BOAS assessment covering all aspects of the required syllabus.

Successful candidates may use the designatory letters “Cert IBO” (Certified Industrial Boiler Operator) or “Dip BOM” (Diploma in Boiler Plant Operation Management). Candidates from both award categories take the same course and written papers. Interviews are specific to each award.

Delegates taking the Cert IBO and Dip BOM will achieve Dual Award status.

All awards are valid for five years, after which a renewal course becomes necessary.

The course covers CAT 2 (shell) boilers although CAT 3 (water tube) can also be accommodated.
COURSE OBJECTIVES

- To deliver the BOAS syllabus
- To prepare candidates for the BOAS accreditation

The syllabus will contain information on the following topics:

- Steam fundamentals
- Types of fuel, combustion and draught
- Feed water
- Boilers, controls and instrumentation
- Operation
- Safety and legal requirements
- Efficiency and environment
- Management

THE ASSESSMENT PROCESS

The course includes all elements of the assessment process.

Both Operators and Managers need to complete the following:

1. Completion of mandatory evidence pack (different requirements for Operators and Managers)
2. Completion of series of written examinations
3. Interview with a third party (KIWA) assessor to establish the individual’s knowledge and understanding, ability, skills and experience

PRE-REQUISITES

ESSENTIAL

Boiler house operatives must have 6 months (or 100 hours) verified practical experience. Supply of paperwork/collation of evidence pack.

RECOMMENDED

Completion of pre-reading (supplied by ourselves). Attendance on the Steam Boiler Plant Fundamentals course – see page 22.

NOTES

1 The course includes written examination papers. All candidates are required to sit examination papers regardless of award.
2 Candidates from sites having shell boilers (CAT 2) are interviewed during the course. Those having water tube boilers (CAT 3) are interviewed at site on a separate occasion.
3 Exact examination papers undertaken will vary depending on boiler type or award.
4 A renewal course is necessary at five yearly intervals – see page 28.
5 Syllabus may be subject to change.
### Boiler Operation Accreditation Scheme (BOAS) - Operator and Manager - Renewal

**WHO IS IT FOR?**

Qualified boiler operators and boiler plant managers/supervisors who have already undertaken the BOAS course and are already entitled to use the designatory letters “Cert IBO” and “Dip BOM” respectively.

For new/inexperienced boiler operators see the Steam Boiler Plant Fundamentals course – page 22.

For boiler operators and managers wishing to obtain a BOAS qualification see the Boiler Operation Accreditation Scheme course page 26.

**WHAT IS IT ABOUT?**

This is a renewal course for boiler operators and managers/supervisors who are already accredited within the Boiler Operation Accreditation Scheme.

The renewal course should be taken on the fifth anniversary of gaining the BOAS award and five yearly thereafter.

Spirax Sarco is a licensed and approved BOAS training provider. This course provides preparation for undertaking the BOAS assessment covering all aspects of the required syllabus.

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**DURATION**

2 DAYS

**DATES**

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**COST**

£450+VAT

KIWA registration and assessment fees (subject to change)

£405+VAT for cat 2 shell boilers

£480+vat for cat 3 water tube boilers

£80+vat for DUAL award

**COURSE REF**

D6AR

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*CEA Combustion Engineering Association*

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*training@uk.spiraxsarco.com*

*01242 535211*
COURSE OBJECTIVES

- To deliver the BOAS syllabus
- To prepare candidates for the BOAS Renewal and re-accreditation

The syllabus\(^2\) will contain information on the following topics:

- Steam fundamentals
- Types of fuel, combustion and draught
- Feed water
- Boilers, controls and instrumentation
- Operation
- Safety and legal requirements
- Efficiency and environment
- Management

THE ASSESSMENT PROCESS

The course includes all elements of the assessment process.\(^5\)

Both Operators and Managers need to complete the following:
1. Completion of mandatory evidence pack (different requirements for Operators and Managers)
2. Completion of series of written examinations\(^4\)
3. Interview with a third party (KIWA) assessor to establish the individual’s knowledge and understanding, ability, skills and experience\(^3\)

PRE-REQUISITES

ESSENTIAL
Already BOAS qualified. Supply of paperwork/collation of required evidence.

RECOMMENDED
Completion of pre-reading (supplied by ourselves).

NOTES
\(^1\) Based on current CEA guidelines but may be subject to change.
\(^2\) Syllabus may be subject to change.
\(^3\) Candidates from sites having shell boilers (CAT 2) are interviewed during the course. Those having water tube boilers (CAT 3) are interviewed at site on a separate occasion.
\(^4\) Exact examination papers undertaken will vary depending on boiler type or award.
\(^5\) The course includes written examination papers. All candidates are required to sit examination papers regardless of award.
MAINTENANCE COURSES
Steam Plant Maintenance - City & Guilds Accredited

WHO IS IT FOR?
Those involved with the maintenance and installation of steam systems and those wishing to obtain a recognised maintenance based steam accreditation.

WHAT IS IT ABOUT?
This course provides delegates with the basic knowledge and practical skills necessary to assess your competence and knowledge based on a City & Guilds approved syllabus.

COURSE OBJECTIVES
By the end of the course delegates will be able to:
- Understand the fundamentals of steam systems
- Demonstrate good installation practices
- Demonstrate fault finding through practical experience
- Maintain steam traps, pressure reducing valves, condensate pumps and other ancillary equipment
- Have an understanding of basic boiler house maintenance – Feedwater treatment and burners

ADDITIONAL INFORMATION
The course is assessed by multiple choice test paper and practical assessment. Spirax Sarco is accredited by The City and Guilds of London Institute to deliver this course. Delegates will take practical and written tests as part of the course.

“ One of the best courses I’ve been on. ”

DURATION
4 DAYS

DATES
16 - 19th January
6 - 9th February
20th - 23rd February
27 - 30th March
10 - 13th April
24 - 27th April
15 - 18th May
12 - 15th June
3rd - 6th July
17 - 20th July
31st July - 3rd August
14 - 17th August
18th - 21st September
2nd - 5th October
16 - 19th October
30th October - 2nd November
20th - 23rd November
18th - 21st December

COST
£1295+VAT

COURSE REF
M2
Safety Valve Accreditation

WHO IS IT FOR?
Those involved with the installation, maintenance and setting of safety valves and requiring training to work on them.

WHAT IS IT ABOUT?
This course gives an understanding of the importance of safety valves, their sizing, setting and installation and what work may be carried out on them, all in accordance with current legislation.

COURSE OBJECTIVES
By the end of the course delegates will be able to:

- Know the purpose of safety valves
- Understand the selection of set pressure
- Be able to identify factors affecting sizing
- Know the main issues around safety valve installation
- Know the key parts for installation of safety valves
- Understand what maintenance is permissible and how to carry this out safely

ADDITIONAL INFORMATION
This course only applies to Spirax Sarco safety valves.
Design of Steam and Condensate Systems

WHO IS IT FOR?
Designers, plant engineers, consultants and those responsible for the general layout of steam and condensate services.

WHAT IS IT ABOUT?
This project based course provides specialist knowledge of current practices in steam and condensate systems, and the factors to be considered in their design.

COURSE OBJECTIVES
By the end of the course delegates will be able to:

• Understand the properties of steam and why it is used
• Calculate the steam demand for different types of steam plant
• Understand the requirements of steam distribution systems
• Understand the need for different steam traps and air vents
• Understand the different methods of steam trap checking and their advantages and disadvantages
• Explain the requirement to remove and recover condensate
• Understand the need for pressure reduction and the different types available
• Explain the factors affecting control valves
• Realise the importance of flash steam recovery
• Explain how safety valves are set, as well as lifting and leaking
• Size pressure reducing valves, steam pipe, condensate pipe, control valves, steam traps, condensate pumps, flash vessels, safety valves and blowdown vessels

PRE-REQUISITES
A good technical knowledge is needed. Delegates will benefit by first taking the Steam Utilisation correspondence course.
Understanding Pressure and Temperature Control

WHO IS IT FOR?

Anyone responsible for the selection and efficient operation of pressure and temperature controls in steam systems.

WHAT IS IT ABOUT?

This course provides a basic understanding of pressure and temperature control, with emphasis on selection and application rather than pure theory!

COURSE OBJECTIVES

By the end of the course delegates will be able to:

• Know the benefits and use of the different types of pressure and temperature controls available (direct acting, pilot operated, electric and pneumatic actuation)
• Be able to identify the types of controllers, signals, sensors, actuators and positioners
• Understand valve selection and sizing
• Identify the type of application for each type of control arrangement

PRE-REQUISITES

Delegates need a good technical knowledge. It would be of benefit to undertake the Automatic Controls correspondence course prior to attendance.
Clean Steam Systems

WHO IS IT FOR?

Anyone with responsibility for the design and operation of clean and pure steam systems. This course is particularly relevant to those working in the pharmaceutical, biotechnology, food and drink and healthcare sectors.

WHAT IS IT ABOUT?

This course will provide an understanding of all aspects of clean steam, pure steam and associated water quality including quality critical aspects of design, operation, maintenance and validation.

COURSE OBJECTIVES

By the end of the course delegates will be able to:

- Identify the classifications of clean steam and high purity water
- Know the requirements of good design, installation and distribution practices
- Identify clean steam components and applications
- Understand the importance of steam quality testing and validation
Carbon Reduction and Energy Efficient Steam Systems

WHO IS IT FOR?
Energy Managers, Project Managers, Maintenance Operators and anyone who needs to manage their costs and carbon reduction within the steam system.

WHAT IS IT ABOUT?
This course covers some of the steps to gaining savings in carbon emissions and energy around the boiler house and steam system. It primarily covers saturated steam and shell boilers as most UK boilers are of this design, although will apply to other designs.

COURSE OBJECTIVES
By the end of the course delegates will be able to:

- Identify ways to reduce energy and make savings in:
  - boiler performance
  - steam distribution
- Measure and control energy in the steam system more effectively
- Calculate payback and create a business case for carbon reduction and energy savings

DURATION
1 DAY

DATES
10th February
12th May
11th July
5th September

COST
£350 + VAT

COURSE REF
E1
Practical Steam Metering

WHO IS IT FOR?
Anyone responsible for using metering when implementing energy saving programmes.

WHAT IS IT ABOUT?
This course provides an understanding of common metering methods and practical data collection in order to effectively manage and implement energy saving programmes.

COURSE OBJECTIVES
By the end of the course delegates will be able to:

• Know the advantages and disadvantages of different types of meters
• Understand common metering terms and their meanings
• Identify the components of good installation practices
• Monitor and target and produce effective reporting
Boiler House Water Treatment

WHO IS IT FOR?
Anyone involved in the day to day running of steam boilers and utility plant including site technicians, boiler operators, supervisors, plant engineers and maintenance engineers.

WHAT IS IT ABOUT?
This course is designed to explain why water treatment of steam plant helps ensure it operates safely and efficiently. The aim is to provide delegates with the knowledge and information to help manage and treat the system effectively.

COURSE OBJECTIVES
By the end of the course delegates will be able to:

- Develop a practical guide to water treatment operations
- Understand the importance of managing water treatment operations
- Develop schemes to prevent scale, corrosion and fouling
- Understand chemical dosing requirements
- Know how to put in place a boiler water treatment strategy

ADDITIONAL INFORMATION
This course is run in collaboration with SUEZ environnement’s Water Conditioning Services UK division (formerly B&V Group).
Legionella Awareness

WHO IS IT FOR?
Anyone involved in monitoring and managing hot and cold water systems to ensure the risk presented by legionella bacteria is minimised.

WHAT IS IT ABOUT?
This course is designed to raise awareness and reduce the risk associated with the water-bourne bacteria that cause Legionnaires’ disease. Delegates who attend this course will leave with an understanding of how to apply relevant legislation within their day to day duties, with a particular focus on the Health & Safety Executive’s new version of the Approved Code of Practice (L8) and accompanying technical guidance (HSG 274) documents.

COURSE OBJECTIVES
By the end of the course delegates will be able to:

• Describe the typical symptoms of Legionnaires’ disease and the types of people who are most susceptible
• Discuss methods of transmission of, and infection with, Legionnaire’s disease
• Explain the key requirements of the legislation, codes of practice and guidance relating to the management of Legionella
• Identify key roles and responsibilities associated with the management of legionella bacteria
• Describe a risk assessment process and the importance of monitoring and control
• Understand how hot and cold water systems operate
• Identify and apply measures for controlling risks within hot and cold water systems, including testing regimes

ADDITIONAL INFORMATION
On successful completion of the course delegates will be awarded the Level 2 Award in Legionella Awareness (QCF), accredited by the Qualification Regulator in England and Wales, Ofqual.

This course is run in collaboration with SUEZ environnement’s Water Conditioning Services UK division (formerly B&V Group).
How to book

The easiest way to book is to use the online registration form on our website at: sxsc.com/uk/SpiraxTraining

If you need any further information about the courses or guidance on which is most suitable then please call us on: 01242 535211

Or drop us an email at training@uk.spiraxsarco.com

Please note that prices quoted are per person. Your booking can only be confirmed once we have received your completed registration form and a copy of your purchase order.

WHERE TO STAY

Our courses do not include accommodation but we will send through an up-to-date list of places to stay during your course with your confirmation of booking. This information is also available on our website at sxsc.com/uk/chelthotels

CATERING

Courses running at our training centre include refreshments and lunch in our outstanding Bistro.
CANCELATIONS POLICY

Should you need to cancel your course there is no fee payable up to 2 weeks prior to the course start date. After that a 50% cancellation fee will become payable. Booked candidates who do not arrive to attend the course will be charged 100% of the course fee. Substitutions are permitted at any time but please let us know.

PRICING

Correct at time of going to press. Check website for current listings. KIWA and examination fees may be subject to change.

Get in touch

We’d love to hear from you and we can be contacted as follows:

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🌐 sxcom.uk/SpiraxTraining

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- Airbags International
- Allianz Engineering
- Allied Bakeries
- AstraZeneca
- Coca-Cola
- Corus Strip Products
- Del Monte Foods
- Ferrero Island
- Ford Motor Company, Dagenham
- Georgia Pacific
- GlaxoSmithKline
- Hammersmith Hospital
- Imperial Tobacco
- Kohler Mira
- Mars
- Masterfoods
- Medical Research Council
- Nestlé
- Northumbrian Water
- Palace of Westminster
- Pfizer
- Rank Hovis
- Rolls-Royce Power Engineering
- Roxel UK Rocket Motors
- Royal Holloway University of London
- Royal Sun Alliance
- Smith & Nephew
- St George’s Hospital, London
- St Joseph’s Hospital, Newport
- Swallowfield Plc
- The Wrigley Company
- Unilever Bestfoods
- Unilever UK Foods
- United Utilities
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