

# Invitation to Tender Specification

## Pipefitting Training Material Development (Ref: P&P 01-20)

## Annexes

**Annex A** - Current ECITB Training Materials to be Reviewed & Updated/Enhanced

**Annex B** - Training Module (TM) and Qualification Matrix

The **Engineering Construction Industry Training Board (ECITB)** is pleased to invite you to tender for the above. Full details are included in these documents, which describe the services which are required, the basis of tendering and the processes to be followed in the submission of tender offers.

## 1. Definitions

In this specification the terms listed below shall have the following meanings:

**Annual Review** means a full review of all **Training Module (TM)** content to ensure any legislation or technical updates and any requirements identified through delivery or learner feedback are incorporated within the **TMs**.

**ECITB** means the Engineering Construction Industry Training Board which is the statutory organisation which sets the standards and looks after the training and competency requirements for the Engineering Construction Industry.

**Level 2 and 3** relates to the notional complexity of the learning content, more information may be found here: <https://www.gov.uk/what-different-qualification-levels-mean/list-of-qualification-levels>.

**Pilot** means delivery of the **TMs** in a holistic manner before release to service to ensure they are fit for purpose, error free and appropriate for the learner.

**Pipefitting** means at:

- **Level 3** someone who can work autonomously and is responsible for the positioning, assembly, fabrication, maintenance and repairs of piping systems.
- **Level 2** someone who is semi-skilled and supports the **Level 3 Pipefitter** but can also perform some less complex elements of the **Pipefitting** role under supervision.

**'Qualification Unit of Assessment (UoA)'** means a document that details the objectives of qualification. The qualification unit is in a standard ECITB format and contains:

- Skills, Knowledge and Behavioural learning outcomes to be met,
- Assessment Criteria to clarify the learning outcomes,
- Learning time to complete the training (GL and TQT).

**Quality Checked** means ensuring all content delivered under the contract is error free (both visually and grammatically), not subject to intellectual property right restrictions and factually correct.

‘**RQF**’ means Regulated Qualification Framework which is the current method of regulating qualifications in England, a range of regulatory documents can be found here: <https://www.gov.uk/guidance/awarding-organisations-understanding-our-regulatory-requirements>

**Training Materials** see **TMs**

**Training Modules (TMs)** means all content required to deliver the skills and knowledge necessary to satisfy the assessment criteria in the:

- Level 2 Diploma in Supporting the Installation of Engineering Construction Plant and Systems (RQF) – Pipefitting (Level 2 IPS).
- Level 3 Diploma in Installing Engineering Construction Plant and Systems (RQF) – Pipefitting. (Level 3 IPS).

The **TMs** should include but not be limited to the following **Training Materials**:

- Lesson plans,
- TM scheme of work,
- Work place training records,
- Learner handouts,
- Power point presentations,
- Videos (if appropriate),
- Knowledge assessments,
- Practical exercises – including:
  - Full assessment specification,
  - Where required detailed engineering drawings/specifications,
  - Practical observation sheets with set task criteria.
- Learner feedback forms,
- Where appropriate, case studies.

**Training Standards (TS)** means a document produced to ECITB format which details the knowledge and skills necessary to satisfy a specific subject matter area – in this case pipefitting.

**UoA** refers to a Unit of Assessment which contain the learning outcomes and assessment criteria for a specific unit of a qualification, collective achievement demonstrated through assessment against the **UoA** that make up a qualification in the specified combination will lead to the learner being certified against the qualification.

## 2. Scope

The consultant will carry out a full review of existing **ECITB Pipefitting Training Materials** (Annex A refers) and then update, rebrand and add to the materials ensuring they fully align with the **Level 2 and 3 ECITB RQF Pipefitting pathway UoA**.

Undertake an **Annual Review** and update of the **Training Materials** delivered through the contract on an annual basis for a period of five consecutive years from the date of formal acceptance of the materials by the **ECITB** point of contact.

## 3. Background

The **ECITB** is currently reviewing its training materials for the occupation of **Pipefitting** with the intention of creating a full suite of **Level 2 and 3 Pipefitting Training Modules (TMs)** to underpin each **ECITB RQF UoA** and corresponding **ECITB TS**.

This approach will allow **ECITB** to offer a complete training solution for **Level 2 and 3 Pipefitting** courses. The required **TMs** and relevant qualifications are listed at Annex B

## 4. The Services

The consultant will:

- Review the existing **ECITB** training materials (Annex A) which underpin the **Pipefitting** occupation,
- Based on the outcome of the review agree the number of days and price per day required to develop each **TM** (Annex B),
- Using existing, and where necessary developing new materials, create the necessary content for each **TM** to ensure each **TM** delivers the skills and knowledge required to satisfy the outcomes in each corresponding **UoA** (as per Annex B),
- Before release to **ECITB** ensure the content of each **TM** is **Quality Checked** to ensure it is error free,
- Carry out a **Pilot** of the **TMs**,
- Carry out annual reviews of all materials for five consecutive years and update/amend any content as identified during the reviews (includes legislation changes).

The **TM** content will be laid out in a standard **ECITB** format that will be provided upon contract award.

## 5. Additional Services

**ECITB** may request Additional Services (as defined in the Form of Contract) from the Consultant.

- **ECITB** are currently reviewing their **Training Standards**, whilst this review should be complete by time of contract award and any revisions for the **Pipefitting** suite which impact on the relevant **Level 2 and 3 RQF Qualifications** are expected to be minimal, there may be a requirement for amending some of the **TM** content during the contract. This work will be limited to extending the contract scope by 5-10% to account for any revisions and all additional work will be charged at the daily rate agreed at time of contract execution.

### 5.1 Other activities

- Attend additional stakeholder meetings (up to maximum of five days) with **ECITB** as requested at the agreed daily rate.

**Tenders should include Day Rates for the provision of Additional Services. Where appropriate identify different rates, e.g. rates for attending meetings, Training Delivery or Support activities.**

## 6. Expenses

Any expenses incurred by the Consultant in the performance of the contract, such as hotel costs, pilot costs and air/rail travel, will only be reimbursed by ECITB if:

- They are reasonable,
- They are agreed in advance with the Project Manager,
- Claims for such expenses are accompanied by valid receipts.

Agreed exceptional expenses must be inclusive of VAT.

It is the ECITB's policy to agree exceptional expenses on the following basis:

- Rail journeys - Standard Class
- Car mileage - Not to exceed 45p per mile, all inclusive
- Airfares - economy class
- Taxis/Hire Cars should only be used if other forms of public transport are not available. (Hire cars, if used, must not be retained unless retention is a cheaper option than any necessary use of taxis)



- Hotels - Up to 3 star.

**Agreed expenses will be reimbursed on an 'as incurred' basis and should not be included in any tender costings.**

## Annex A - Current ECITB Training Materials to be Reviewed and Updated/Enhanced

Presentations	Handouts	Knowledge tests	Exercise specifications
1. General Health and Safety	1. CO1 – Contribute to effective working relationships	1. CO1, O2 and O3	1. Draw pipe bracket
2. Drawings and Documents	2. CO2 – Work safely, minimise risk and comply with emergency procedures	2. Engineering Drawings	2. Read and extract information from drawings and specifications
3. Assemble + Tighten Flanges	3. Manual Handling, Slings and Lifting	3. Engineering Materials	3. Basic Hand Tools – Production of a test piece to tolerance
4. Developing Patterns for Pipework	4. Oxy Fuel Cutting	4. Hand Tools	4. Basic Hand Tools -Production of Chamfer Gauge
5. Fabricate + Install Pipe Supports	5. Pipefitting Materials	5. Prepare and Assemble Screwed Pipe	5. Pipe Butt Weld Exercise x2
6. Fabricating Branches and Bends	6. Pipefitting Tools	6. Prepare and Assemble Welded Pipework	6. Chamfer Pipe using Portable Edge Preparation Equipment
7. Hand Tools and Equipment	7. Pipework	7. Prepare and Bond GRP Pipework	7. Oxy-Fuel Cutting Exercise (Girder)
8. Install Pipework Systems	8. Portable Grinder	8. Preparing Pipe Ends	8. Oxy-Fuel Cutting Exercise (Pipe)
9. Install Steam Tracing and Jacket Pipes	9. Power Tools	9. Setting Out Pipework	9. Oxy-Fuel Cutting Exercise (Angle Iron)
10. Oxy Fuel Cutting	10. Prep and Assemble Non Metallic Pipe		10. Screwed pipework exercise
11. Pipefitting Materials	11. Prep and Test Pipework Systems		11. ¾" Screwed Pipework
12. Pipefitting Tools	12. Prep Pipe Ends 2		12. Screwed Pipework fabrication using threading machine
13. Portable Grinder	13. Prep Pipe Ends		14. Weld fittings and flange assembly
14. Power Tools	15. Preparation and Bond GRP Pipe		16. Fabricate 3" CS Equal Branch
15. Prep and Bond GRP Pipe	17. Setting Out Pipework and Marking		18. Fabricate Equal Lateral Branch 3"
16. Prep and Test Pipework Systems	19. Tack Welding		20. Fabricate Unequal Lateral Branch 4" CS Pipe and 3" CS Pipe
17. Preparing and Assembling Non FE Pipe	20. Tighten and Tension Bolted Connections		21. Machine Bending - ½" NB BS1387 Pipe
22. Preparing and Assembling Screwed Pipe	21. Safety in Pipework Testing		23. Machine Bending - Double Square Bend Flat Offset IPS D33
22. Preparing Pipe Ends			25. Cold Bending (22mm Copper pipe)
24. Safe Lifting and Slings			27. Rolled Offset and Square Bend 15mm NB C/S pipe
26. Setting Out Pipework and Marking Out			28. Fabricate Eight bolt flange (spiral wound gasket)
			29. Fabricate Eight bolt flanges (metallic gaskets)

## Annex B – Training Module (TM) and Qualification Matrix

Qualification	Existing UoA to be used as a reference	TM to be developed against reference UoA
Level 2 Diploma in Supporting the Installation of Engineering Construction Plant and Systems (RQF) – Pipefitting	Unit SIPS01 Work safely, effectively, ethically and sustainably, managing risk and hazards	TMSIPS01 Work safely, effectively, ethically and sustainably, managing risk and hazards
	Unit SIPS02 Interpret and follow documentation and procedures including prepare and reinstate the work area	TMSIPS02 Interpret and follow documentation and procedures including prepare and reinstate the work area
	Unit SIPS03 Mark out to the required specification	TMSIPS03 Mark out to the required specification
	Unit SIPS04 Shape components by material removal using hand tools	TMSIPS04 Shape components by material removal using hand tools
	Unit SIPS05 Support the assembly of components	TMSIPS05 Support the assembly of components
	Unit SIPS06 Support the positioning and installation of plant and equipment	TMSIPS06 Support the positioning and installation of plant and equipment
	Unit SIPS07 Support the dismantling of plant and equipment	TMSIPS07 Support the dismantling of plant and equipment
	Unit SIPS08 Support welding operations in engineering	TMSIPS08 Support welding operations in engineering
Level 3 Diploma in Installing Engineering Construction Plant and Systems (RQF) – Pipefitting	Unit IPS01 Work safely, effectively, ethically and sustainably, managing risks and hazards.	TMIPS01 Work safely, effectively, ethically and sustainably, managing risks and hazards.
	Unit IPS02 Interpret and follow fabrication and installation documentation and procedures including prepare and reinstate the work area.	TMIPS02 Interpret and follow fabrication and installation documentation and procedures including prepare and reinstate the work area.
	Unit IPS03 Mark out to the required specification.	TMIPS03 Mark out to the required specification.
	Unit IPS04 Shape components by material removal using hand tools.	TMIPS04 Shape components by material removal using hand tools.
	Unit IPS05 Forming materials by applied pressure.	TMIPS05 Forming materials by applied pressure.
	Unit IPS07 Assemble components.	TMIPS07 Assemble components.
	Unit IPS08 Position and Install plant, equipment and systems.	TMIPS08 Position and Install plant, equipment and systems.
	IPS10 Test the performance and condition of installed components and assemblies.	TMIPS10 Test the performance and condition of installed components and assemblies.
	IPS11 Dismantle assemblies, plant, equipment and systems.	TMIPS11 Dismantle assemblies, plant, equipment and systems.

**Note:** IPS/SIP Units 01 and 02 across the Level 2 and Level 3 Qualifications will be similar in content.