



CIWEM

The Chartered Institution of
Water and Environmental Management

Evidence Of Attainment Of Mandatory Competences Affiliate/EngTech

EVIDENCE OF ATTAINMENT OF CIWEM MANDATORY COMPETENCES

All applicants presenting themselves for consideration as Affiliates and Engineering Technicians are asked to submit evidence of attainment of CIWEM's Mandatory Competences on the following form.

The CIWEM Mandatory Competences give you a way to show your personal contribution. Make sure you show clearly the things you have achieved as your level of attainment and professionalism are being considered. Remember to give all the statement of attainment examples from your own recent personal perspective. (Write in the first person, I did, I was responsible also think about 'where', 'when' and 'how' when compiling your examples).

The form can be completed clearly in long hand or preferably you can type your statements. Each statement should be approximately 100 words or less in length and the font size 11+. A copy of the form is available in Word format from the Membership Department and a pdf file can be found at www.ciwem.org

Please **do not** alter the format, (expand the boxes), make additions or append information to the form as this is used both by the Professional Boards at the initial assessment stage and, if you are invited, by the Interview Panel at the Professional Review Interview to record the outcome of your interview.

If you are invited to attend a Professional Review Interview try to cross reference the examples you give on the form with those given in your career and project report.

Please **ensure** that your Sponsor/Supervisor/Mentor indicates how they have judged your attainment of the competences, (written reports, observation, questioning or other comments).

Also **ensure** that your Sponsor/Supervisor/Mentor signs and dates each statement made and also **signs the last page** to indicate their status.

Applicants, who have followed a formal Structured Training Scheme either for CIWEM or another Professional Body, will still be required to complete the form in full.

Applicants who are already members of another qualifying body will also be required to fully complete the form.

You can provide more than one example for each competence however the information you do provide must be sufficient to meet the competence.

Your example should be quantified wherever possible, e.g. flow volumes, cost etc.

Examples of the type of evidence required are outlined on the following pages.

To help you complete this form some worked examples are given at appendix A. These are a very small sample and there are bound to be many more examples that you can draw from your own personal experience.

GUIDANCE FOR COMPLETION OF CIWEM 10 MANDATORY COMPETENCES

The Competences are numbered A.1 – C.4 and under each heading there are some examples of areas you may wish to examine to demonstrate your personal attainment of each of the competences.

A.1 Understand and apply changes in policies and strategies relevant to the area you control, or to the process that you manage.

Investigate the changes to the activities or process that you manage.

Demonstrate knowledge of the legislation that applies to the process that you manage.

Establish what the main technologies behind the process you manage are, and investigate what developments are being made in this area.

A.2 Develop a personal commitment to encourage change, and contribute suggestions to better working practices.

Identify changes in performance to the activities and processes that you control.

Understand why these changes occur and what actions need to be taken to maintain optimum performance.

Investigate how the activities or processes you control compares to other similar activities or processes within your business and use this knowledge to identify how you can make improvements in areas under your responsibility.

B.1 Demonstrate skills, knowledge and understanding in the management and the environmental aspects and impacts of the areas that you control.

Assess the areas that you control for: its potential effects on your business and the environment; its impact on the local community; the potential for environmental impact reduction via reduce, re-use and recycle; the environmental legislation under which the process is operated.

Investigate how changes in operational performance impact the cost and efficiency of the process that you control and demonstrate the impacts on your client/customer if these variances were implemented across the business.

Evaluate the use of external resources used in the process that you manage and show how these might be improved.

B.2 Prepare potential solution and evaluate their merit.

Using your skills, knowledge and experience investigate all of the options available for the solution to an operational problem in the process that you manage.

Record how you have identified these options and proposed the appropriate solutions.

B.3 Demonstrate the ability to implement change enforced by new requirements.

Understand, apply and operate changes in working practices required by new processes or legislation.

Ensure that those who work under your supervision comply with new working practices.

Assess site, buildings and equipment against changes in working practices or legislation to make sure that they are in compliance.

B.4 Contribute to the monitoring and assessment of the operation and maintenance of systems and services.

Demonstrate how you have used your knowledge, skills and understanding to:

- ❖ operate systems and services to meet business plan/performance objectives;
- ❖ maintain systems and services to satisfy ongoing requirements;
- ❖ contribute to maintenance plans to meet required outputs and performance;
- ❖ monitor and contribute to the evaluation of performance against pre-determined standards;
- ❖ Contribute to the identification and diagnosis of unacceptable variations in performance.

C.1 Apply professional ethics in your work.

Share your knowledge, skills and understanding about the process you manage with others at all levels via meetings; networking; discussion; etc.

Demonstrate how in communicating with others you have set out your reasons factually and objectively so that the appropriate solution can be reached.

Demonstrate how you are continually striving to set goals to:

- ❖ advance your development;
- ❖ keep pace with changes.

Demonstrate how you read, understood and applied:

- ❖ the code of conduct of your chosen professional body;
- ❖ the code of conduct of your employer.
- ❖ develop integrity as the mainstay of your personal conduct and judgement.

Demonstrate a commitment to the development of CIWEM by:

- ❖ championing the cause of your membership grade within the institution;
- ❖ adopting existing practices for other grades of membership and applying them to your own grade;
- ❖ acting as Affiliate representative wherever possible on the committees and management structure of CIWEM.

C.2 Contribute to the effectiveness and competitiveness of your organisation by efficient management of resources.

Function as an individual in a dependable and efficient manner, without close supervision.

Monitor, maintain and suggest improvements to efficient resources usage.

Organize the use of resources (financial, human, premises and equipment) to their most effective deployment.

Demonstrate how you have optimised:

- ❖ the knowledge, skills and understanding for those whom you have responsibility;
- ❖ the application of relevant employment legislation;
- ❖ effective team working;
- ❖ the appropriate communication of the company strategy and policies, both internally and externally.

C.3 Demonstrate a commitment to the promotion of Health & Safety, quality and sustainable environmental activity (Applicants shall give examples from all three areas).

Demonstrate awareness of employer's Health & Safety policy and procedures, and Health & Safety practices appropriate to all aspects of your work.

Contribute to the development of safety guidelines, taking account of risk assessment, safe systems at work, control procedures and recovery methods.

Assess and apply safe systems and conditions, including safety of the community.

Promote adherence to safety requirements. Investigate accidents and unsafe behaviour of individuals and the environment in which they work.

Co-ordinate and maintain environmental safety and impact e.g. in respect of pollution control, biodiversity protection, etc.

Promote the wise use of non-renewable resources through waste minimisation, recycling and the suggestion of alternatives wherever possible.

Strive to achieve the beneficial objectives of your work with the lowest possible consumption of raw materials and energy, and by adopting sustainable management practices.

Manage environmental performance through audit, reporting, evaluation, planning and monitoring.

Demonstrate your commitment to continuous improvement of the activities that you control by using quality management systems and assurance techniques to ensure that your work, and the work of those for whom you have responsibility, is performed to the established standards.

C.4 Demonstrate a commitment to continuing learning and professional development.

Develop and improve personal competence in:

- ❖ managing oneself: e.g. preparation and maintenance of a personal development programme;
- ❖ working with others e.g. exchanging ideas, developing others and mentoring;
- ❖ managing information;

- ❖ effective oral and written communication;
- ❖ the use of appropriate computer technology;
- ❖ maintaining a sound practical and theoretical approach to your own work and that of others;
- ❖ understand and manage the limits of your skills, knowledge and understanding.

Demonstrate a commitment to continued maintenance and improvement of knowledge, experience and skills via a personal development programme:

- ❖ continually develop existing technology, services, products, current practices and processes to improve your effectiveness, and the effectiveness of those who you are responsible for;
- ❖ keep abreast of emerging technology, products, processes and other relevant developments;
- ❖ identify how these changes can be applied to ensure sound environmental use and continued quality.

APPENDIX A

EXAMPLES OF MANDATORY COMPETENCE ATTAINMENT

A.1 Understand and apply changes in policies and strategies relevant to the area you control, or to the process that you manage.

Example 1 – I have undertaken and completed a CIWEM formal Structured Training Scheme and regularly attend CIWEM events and technical meetings all of which have enable me to understand more fully wider environmental issues. Added to this I have regularly read the technical articles published in the CIWEM Journal and this has also helped me to stay up to date with new process improvement in the industry.

Example 2 – I have undertaken research into new plant and systems, e.g. going through manufacturer's handbooks and extracting key sections to enable me to draft new work instructions, systems of work and staff training packages.

A.2 Develop a personal commitment to encourage change, and contribute suggestions to better working practices.

Example 1 – I have been working with building control personnel, planners, regulators, (Environment Agency, Local Authorities, Customs etc) in relation to building works.

Example 2 – I have carried out Best Available Techniques (BAT) assessments and made recommendations to my employer. I have also used a responsible care scheme or other Codes of Practice during my activities.

B.1 Demonstrate skills, knowledge and understanding in the management and the environmental aspects and impacts of the areas that you control.

Example 1 – I have been involved in and developed sections of waste minimisation programmes for my company, including identification of specific outcomes/targets e.g. x% reduction in water usage by Q1/05.

Example 2 – I have undertaken cost benefit analyses of parts of a process e.g. cost of metal lost via rinses etc (%of the original deposited on product).

B.2 Prepare potential solutions and evaluate their merit.

Example 1 – Linked with the example given above, where I identified wastage I formulated an action plan and applied the conclusions, e.g. installation of timers to reduce flushing of urinals, increased use of lagging to avoid frost damage or heat loss.

Example 2 – I assisted with the monitoring of contractors to ensure maintenance was carried out correctly/on time and on budget.

B.3 Demonstrate the ability to implement change enforced by new requirements.

Example 1 – I assisted with commissioning work for a new plant, the introduction of new monitoring schemes, analytical techniques and computer programmes.

Example 2 – I managed changes to employees' shift patterns and staff rotas.

B.4 Contribute to the monitoring and assessment of the operation and maintenance of systems and services.

Example 1 – I supported the development of monitoring programmes, energy, water usage schemes and calculations of unit cost systems to monitor efficiency.

Example 2 – I have demonstrated this via the use of mass balance and the development of computer models or conceptual models.

C.1 Apply professional ethics in your work.

Example 1 – I have represented my company at liaison meeting with contractors, members of the public to ensure that any actions do not jeopardise the environment and additionally embrace the needs of the community.

Example 2 – I have carefully considered this issue when I have been helping to develop staff training packages or parts thereof to ensure that high standards of professional behaviour are maintained within the company. .

C.2 Contribute to the effectiveness and competitiveness of your organisation, by efficient management of resources.

Example 1 – By my usage of monitoring data e.g. reductions in energy, material usage, increased recycling of off cuts, (grinding of excess plastics produced during moulding processes for inclusion with virgin plastic.

Example 2 – By the monitoring of water usage and reduction, e.g. use of more spray washes, static tanks and removal of running rinses in electroplating.

C.3 Demonstrate a commitment to the promotion of Health & Safety, Quality and Sustainable environmental activity (Applicants shall give examples from all three areas).

Example 1 – I have achieved this by the development of permit to work schemes or other H&S safety procedures, work instructions with a link to the supervision of contractors.

Example 2 – My Company has ISO 14001, 9001, EMAS or similar management system and I have produced work instructions or other systems of work, monitoring programmes etc to assist with compliance.

C.4 Demonstrate a commitment to continuing learning and professional development.

Example 1 – I have kept my IPD record up to date and also attended training courses.

Example 2 – I regularly read the CIWEM Journal and participate in organising my local CIWEM Branch events.

EVIDENCE OF ATTAINMENT OF MANDATORY COMPETENCES

STATEMENT OF ATTAINMENT:	A2) Develop a personal commitment to encourage change, and contribute suggestions to better working practices.
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To be completed by the candidate only

Mentor/Supervisor/Sponsor: Signature: _____ Date: _____	Judged attainment by: Written Reports <input type="checkbox"/> Questioning <input type="checkbox"/> Observation <input type="checkbox"/> Other (comments) _____ _____
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TO BE COMPLETED BY PROFESSIONAL REVIEWERS ONLY

Demonstrated In: Reports <input type="checkbox"/> Interview <input type="checkbox"/>	Decision Pass <input type="checkbox"/> Fail <input type="checkbox"/>
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Reviewers Comments

EVIDENCE OF ATTAINMENT OF MANDATORY COMPETENCES

STATEMENT OF ATTAINMENT:	B1) Demonstrate skills, knowledge and understanding In the management and the environmental aspects and impacts of the areas that you control.
To be completed by the candidate only	
Mentor/Supervisor/Sponsor: Signature: _____ Date: _____	Judged attainment by: Written Reports <input type="checkbox"/> Questioning <input type="checkbox"/> Observation <input type="checkbox"/> Other (comments) _____ _____

TO BE COMPLETED BY PROFESSIONAL REVIEWERS ONLY

Demonstrated In: Reports <input type="checkbox"/> Interview <input type="checkbox"/>	Decision Pass <input type="checkbox"/> Fail <input type="checkbox"/>
Reviewers Comments	

EVIDENCE OF ATTAINMENT OF MANDATORY COMPETENCES

STATEMENT OF ATTAINMENT:	B2) Prepare potential solutions and evaluate their merit.
To be completed by the candidate only	
Mentor/Supervisor/Sponsor : Signature: _____ Date: _____	Judged attainment by: Written Reports <input type="checkbox"/> Questioning <input type="checkbox"/> Observation <input type="checkbox"/> Other (comments) _____ _____

TO BE COMPLETED BY PROFESSIONAL REVIEWERS ONLY

Demonstrated In: Reports <input type="checkbox"/> Interview <input type="checkbox"/>	Decision Pass <input type="checkbox"/> Fail <input type="checkbox"/>
Reviewers Comments	

EVIDENCE OF ATTAINMENT OF MANDATORY COMPETENCES

STATEMENT OF ATTAINMENT:	B3) Demonstrate the ability to implement change enforced by new requirements.
To be completed by the candidate only	
Mentor/Supervisor/Sponsor: Signature: _____ Date: _____	Judged attainment by: Written Reports <input type="checkbox"/> Questioning <input type="checkbox"/> Observation <input type="checkbox"/> Other (comments) _____ _____

TO BE COMPLETED BY PROFESSIONAL REVIEWERS ONLY

Demonstrated In: Reports <input type="checkbox"/> Interview <input type="checkbox"/>	Decision Pass <input type="checkbox"/> Fail <input type="checkbox"/>
Reviewers Comments	

EVIDENCE OF ATTAINMENT OF MANDATORY COMPETENCES

STATEMENT OF ATTAINMENT:	B4) Contribute to the monitoring and assessment of the operation and maintenance of systems and services.
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To be completed by the candidate only

Mentor/Supervisor/Sponsor : Signature: _____ Date: _____	Judged attainment by: Written Reports <input type="checkbox"/> Questioning <input type="checkbox"/> Observation <input type="checkbox"/> Other (comments) _____ _____
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TO BE COMPLETED BY PROFESSIONAL REVIEWERS ONLY

Demonstrated In: Reports <input type="checkbox"/> Interview <input type="checkbox"/>	Decision Pass <input type="checkbox"/> Fail <input type="checkbox"/>
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Reviewers Comments

EVIDENCE OF ATTAINMENT OF MANDATORY COMPETENCES

STATEMENT OF ATTAINMENT:	C1) Apply professional ethics in your work.
To be completed by the candidate only	
Mentor/Supervisor/Sponsor: Signature: _____ Date: _____	Judged attainment by: Written Reports <input type="checkbox"/> Questioning <input type="checkbox"/> Observation <input type="checkbox"/> Other (comments) _____ _____

TO BE COMPLETED BY PROFESSIONAL REVIEWERS ONLY

Demonstrated In: Reports <input type="checkbox"/> Interview <input type="checkbox"/>	Decision Pass <input type="checkbox"/> Fail <input type="checkbox"/>
Reviewers Comments	

EVIDENCE OF ATTAINMENT OF MANDATORY COMPETENCES

<p>STATEMENT OF ATTAINMENT:</p>	<p>C2) Contribute to the effectiveness and competitiveness of your organisation by efficient management of resources.</p>
<p>To be completed by the candidate only</p>	
<p>Mentor/Supervisor/Sponsor:</p> <p>Signature: _____</p> <p>Date: _____</p>	<p>Judged attainment by:</p> <p>Written Reports <input type="checkbox"/> Questioning <input type="checkbox"/></p> <p>Observation <input type="checkbox"/> Other (comments) _____</p> <p>- _____</p>

TO BE COMPLETED BY PROFESSIONAL REVIEWERS ONLY

<p>Demonstrated In:</p> <p>Reports <input type="checkbox"/> Interview <input type="checkbox"/></p>	<p>Decision</p> <p>Pass <input type="checkbox"/> Fail <input type="checkbox"/></p>
<p>Reviewers Comments</p>	

EVIDENCE OF ATTAINMENT OF MANDATORY COMPETENCES

STATEMENT OF ATTAINMENT:

C3) Demonstrate a commitment to the promotion of Health & Safety, quality and sustainable environmental activity (Applicants shall give examples from all three areas).

To be completed by the candidate only

Mentor/Supervisor/Sponsor:

Signature: _____

Date: _____

Judged attainment by:

Written Reports Questioning

Observation Other (comments) _____

TO BE COMPLETED BY PROFESSIONAL REVIEWERS ONLY

Demonstrated In:

Reports Interview

Decision

Pass Fail

Reviewers Comments

EVIDENCE OF ATTAINMENT OF MANDATORY COMPETENCES

STATEMENT OF ATTAINMENT:	C4) Demonstrate a commitment to continuing learning and professional development.
To be completed by the candidate only	
Mentor/Supervisor/Sponsor: Signature: _____ Date: _____	Judged attainment by: Written Reports <input type="checkbox"/> Questioning <input type="checkbox"/> Observation <input type="checkbox"/> Other (comments) _____ _____

TO BE COMPLETED BY PROFESSIONAL REVIEWERS ONLY

Demonstrated In: Reports <input type="checkbox"/> Interview <input type="checkbox"/>	Decision Pass <input type="checkbox"/> Fail <input type="checkbox"/>
Reviewers Comments	

CANDIDATES NAME _____ Affiliate/EngTech

NOTES FOR MENTORS/SPONSORS/SUPERVISORS

Full details of the mandatory competences are given as an appendix to this form. It is important that you indicate in the 'judged attainment by' column of the form (Mentor/Sponsor or Supervisor), how you have judged the candidate's attainment of the mandatory competences (e.g. by written reports, observation or questioning). Please sign each competence and this form indicating your status (*delete as applicable).

NAME: _____ *MENTOR/SPONSOR/SUPERVISOR

QUALIFICATIONS: _____

POSITION IN ORGANISATION: _____

SIGNATURE: _____ DATE: _____

NOTES FOR PROFESSIONAL REVIEWERS

It is important that you assess the degree to which the candidate has demonstrated attainment of the mandatory competences in both reports and at interview. Please tick the boxes appropriately and complete your comments on each competence in the box provided. All Reviewers on the panel must jointly sign this form, on the day of the interview.

RECOMMENDATION

We the undersigned confirm that this Applicant has satisfied/not satisfied* the Institution's requirements and Mandatory Competences and we/we do not* recommend to the Council that the Applicant be admitted to the grade of: *Affiliate/EngTech

REVIEWER COMMENTS

NAME:
CEng/IEng/EngTech _____ SIGNATURE _____

NAME:
CEng/IEng/EngTech _____ SIGNATURE _____

NAME
CEng/IEng/EngTech _____ SIGNATURE _____

DATE: _____