



BECOMING A REGISTERED TECHNICIAN

The Technician Statements of Competence

This document:

- **Defines an Engineering Technician**
- **Explains the Engineering Council Statements of Competence and Commitment**
- **Gives guidance on applying the standards to highways and transportation**
- **Lists some typical documents and schemes you might submit for Review**
- **Explains how to use an NVQ/SVQ3 portfolio**

What is an EngTech

Today's Professional Engineering Technicians apply proven techniques and procedures to solve practical engineering problems. They carry supervisory or technical responsibility and are competent to exercise creative aptitudes and skills with a defined field. Professional Engineering Technicians contribute to the design, development; manufacture commissioning, operation and maintenance of products, equipment, processes and services. In all cases they apply safe systems of work.

IHIE technician members include works supervisors, highways inspectors, road safety/AIP practitioners, development control staff and traffic technicians. Remember that although you work in a team and probably report to a manager, the Institute wants to know what you personally did and the extent of your responsibility.

Further Information

IHIE

De Morgan House

58 Russell Square

London WC1B 4HS

Tel: 020 7436 7487

Fax: 020 7436 7488

Email: secretary@ihie.org.uk

The EC Standards	IHIE Guidance	How you can show you meet the standards <i>(These are our suggestions. Your choice will depend on your work. Use the same documents for other statements).</i>
A. Use engineering knowledge and understanding to apply technical and practical skills		
A.1 Review and select techniques, procedures and methods to undertake tasks The assessors will be looking for evidence that you have the know-how to do the job and can go beyond the immediate requirements to draw on your experience to solve a problem or improve a process	<i>In your submission, show that you:</i> Know and apply current legislation, standards etc. Review current methods and operations to choose appropriate techniques. Know which procedures to apply to each task.	Evidence from projects showing you: <ul style="list-style-type: none"> • Applying knowledge and skills to engineering tasks.
A.2 Use appropriate scientific, technical or engineering principles	Apply proven engineering principles and techniques. Apply scientific principles and know how in providing engineering advice.	Evidence from projects showing you: <ul style="list-style-type: none"> • Applying legislation, specifications, codes of practice, trade publications, quality guidance. • Using your knowledge to give technical advice You should refer in your submission to the TAs, TDs, PPGs, NRSWA, Traffic Sign Regs, Codes of Practice, Highways Act and other relevant legislation, Conditions of Contract, standard computer programmes etc relevant to your work.

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B. Contribute to the design, development, manufacture construction, commissioning, operation or maintenance of products, equipment, processes, systems or services.		
B.1 Identify problems and apply diagnostic methods to identify causes and achieve satisfactory solutions	<i>In your submission, show that you:</i> Assist in identifying client, user and community requirements. Carry out surveys. Exercise technical judgement and guidance. Select appropriate diagnostic tools and methods. Use technical guidance to identify the source of problem, and to suggest solutions.	Evidence of how you have applied your technical expertise at an appropriate level to identify the source of a problem and decided how best to solve it. <i>Typical documents which you can provide might be:</i> Surveys, inspection records or reports. Analysis and application of survey results. Safety Audits. Accident investigation reports. Applications of standard monitoring techniques and standard computer packages. AIP Studies.
B.2 Identify, organise and use resources effectively to complete tasks, with due regard to cost, quality, safety, and environmental impact.	Manage small schemes and areas of work. Identify what materials and resources to use	Testing records and reports. Correspondence/minutes/reports/demonstrating application of expertise. Site notes and instructions, variation orders, etc Programmes of work. Specifications, drawings report. <i>Evidence can come from on e large task or several smaller ones covering monitoring, diagnosis, rectification, testing and evaluation.</i> These are suggestions: your choice will depend on your job. The same documents could also be used to prove competence Statements A, C etc.

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C. Accept and exercise personal responsibility		
C.1 Work reliably and effectively without close supervision to the appropriate codes of practice	<p><i>In your submission, show that you:</i></p> <p>Work efficiently under minimum supervision. Take responsibility for your actions within your capabilities. Contribute to planning tasks. Comply with relevant regulatory and practice requirements.</p>	<p>See Statement B for examples of evidence.</p> <p>Your evidence should show:</p> <ul style="list-style-type: none"> • Your personal accountability level • How you personally identified and agreed what had to be done and to what standard on a typical project. • How you allocated work, reviewed, progressed and followed up. • References to current standards etc.
C.2 Accept responsibility for your own work and the work of others.	<p>Make independent technical decisions and give advice within your capabilities. Assist, supervise and advise others.</p>	<p>See Statement B for examples of evidence, plus:</p> <p>Minutes of meetings Site notes and instructions, Variation Orders, etc</p>
C.3 Accept, allocate and supervise technical and other tasks.	<p>Accept responsibility for completing tasks to time, resources and costs and to quality standards.</p> <p>Manage yourself.</p>	<p>Programmes of work Specifications, drawings, reports Appraisal forms</p> <p><i>Voluntary work can contribute evidence.</i></p>

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D. Use effective communication and interpersonal skills		
D.1 Use oral, written and electronic methods to communicate in English technical and other information	<i>In your submission, show that you:</i> Select appropriate ways of communicating. e.g. diagrams, sketches, plans, photographs, internet, audiovisuals, reports, IT. Use words, images, audio visuals, as appropriate. Communicate fluently verbally and in writing. Respond effectively and efficiently to receive communications. Advise and inform others on technical procedures.	Presentation of your Review submission and your performance at interview also provide direct evidence of your communication skills. Letters, faxes, reports, drawings, advice, notes, minutes of progress meetings which you wrote and which show your role in discussions. (Normally, these will also be your evidence for Statements A, B or C) Appraisals Work instructions Task planning and organising documents..
D.2 Work effectively with colleagues, clients, suppliers and the public	Establish and maintain effective working relationships with colleagues, clients and others. Give clear and accurate instructions. Take an active part in team meetings. Meet commitments in an efficient and timely manner.	Your Employer / Proposer statement will also certify your competence in this role in Form 301. <i>Applicants with a National Certificate awarded after 2000, or an advanced GNVQ or a Vocational 'A' level or NVQ level 3 will have evidence of the Key Skills "Communication" and "Working with Others" and can refer to this as their evidence.</i>

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<p><i>E. Make a personal commitment to an appropriate code of professional conduct, recognising your obligations to society, the profession and the environment</i></p>		
<p>E.1 Comply with the Codes and Rules of Conduct of IHIE</p>	<p><i>In your submission, show that you</i></p> <p>Know your organisation's goals and ethos. Behave appropriately and professionally. Demonstrate integrity. Base your opinions or statements on adequate knowledge and are objective and truthful. Know the purpose of professional institutions Know the duty of an engineer under IHIE and EC (UK) Codes and Rules of Conduct</p>	<p>Include an example of where ethical behaviour has been an issue at work and of how a conflict of interest was resolved, or refer to your company's procedures for doing so. Refer to your company's standing orders, equal opportunities and conduct statements. At Review expect to discuss practical ethical issues arising from your work. Participate in institution activities (attend meetings, provide careers /school advice, read journals).</p>
<p>E.2 Manage and apply safe systems of work</p>	<p><i>In your submission, show that you:</i></p> <p>Design or plan safe systems. Select appropriate equipment Identify potential hazards and plan how to deal with them. Work safely. Accept responsibility for own and others' safety. Are aware of emergency measures. Comply with HASWA (1974), CDM regulations, Company safety policy, relevant legislation, codes of practice, transport and road safety</p>	<p>List the formal safety training you have received which should include 1 CPD Day of relevant health and safety training prior to TPR. In your submission and at interview refer to relevant legislation and show you apply safe practices. Include examples of dealing with Risk and of corrective or emergency action taken to control hazard, or the procedures for doing so. <i>For example:</i> Application of CDM regulations, Chapter 8, Codes etc. Risk and COSHH assessments (see also E3). Reports recommending improvements in safety. Safety audits.</p>

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<p>E.3</p> <p>Undertake engineering work making and using risk assessments and observing good practice with regard to the environment and the community.</p>	<p><i>In your submission, show that you:</i></p> <p>Assess and control risk to health, safety and the environment.</p> <p>Comply with environmental regulations.</p> <p>Are aware of and adopt, where possible, sustainable practices.</p>	<p>Include an initiative taken to address a current environmental issue.</p> <p>1 CPD Day on Environmental Issues prior to TPR.</p> <p>Discussion at interview showing awareness of sustainability issues.</p> <p>Environmental or social impact assessments you conducted or commissioned.</p>
<p>E.4</p> <p>Carry out continuing professional development necessary to ensure your continuing competence and at the level of future intended practice.</p>	<p>Actively seek to keep up to date.</p> <p>Prepare and maintain a personal action plan.</p> <p>Keep CPD records of professional development activities.</p>	<p>Include in your submission</p> <ul style="list-style-type: none"> - a record of off the job education and training - 3 CPD days off-the-job education and training in the last two years - a Development Action Plan including the years following a successful Review. <p>Use your recent annual appraisals or IHIE documents.</p> <p>Expect to discuss your career aspirations at the TPR interview.</p> <p>NVQ3 portfolios may include sufficient evidence.</p>

NVQ/SVQ3 Portfolios

You need to send a schedule explaining how the NVQ units meet the roles and cross referencing the evidence from your NVQ portfolio to the above EC Statements..

Role	NVQ Unit or element	Documentary Evidence	Explanation
A1	TRP 4/029	Appraisal form	
A2	TRP 4/C01 TRP 4/C02	Brief for Highway One Brief to survey team	
etc			

In your explanation, state why the NVQ evidence meets our requirements – much as for the Evidence Summary Forms but more briefly.

Example of an Evidence Matrix

Traffic Technician: responsibilities include Parking, TROs, speed appraisals

Statement ... Document	Doc Ref	A1	A2	B1	B2	C1	C2	C3	D1	D2	E1	E2	E3	E4
Site Preparation Memo	EV1	x	x	x	x	x		x	x		x	x	x	
Scheme Options Report	EV2	x	x	x	x	x	x		x					
Programme Report	EV3				x	x	x	x	x	x	x			
Conflict Scenario	EV4						x			x	x			
Send own Restrictions on Waiting TLM report	EV5	x	x	x	x	x	x		x	x		x	x	
Works Order Package for Romney	EV6	x	x	x	x	x	x	x	x	x		x	x	
Email To Traffic Coordinator	EV7	x	x	x	x				x	x		x	x	
Parkmap Measurements	EV8	x	x	x		x	x		x		x			
Checking Work- Smithfield	EV9	x	x	x			x		x	x	x			
Email to Community Representatives	EV10					x	x	x	x	x				
Consultation Finder Table	EV11				x	x	x	x	x	x				
Accident Analysis	EV12		x	x	x	x	x	x	x					
Speed Analysis Data	EV13													
CPD Record		x	x	x	x	x	x	x	x				x	x
Appraisal Booklet 2005	App 1	x				x		x	x	x				x
Appraisal Booklet 2006	App 2	x				x		x	x	x				x