



Technician IPD Report Guidance

You are **not** expected to be fully competent in **all** of the Technician IPD objectives below, but you must have broad based experience and responsibility in one or more aspects of fire engineering as well as some knowledge of related aspects.

Evidence Examples

OBJECTIVE	RANGE	EVIDENCE EXAMPLES
A Use engineering knowledge and understanding to apply technical and practical skills	A1 Review and select appropriate techniques, procedures and methods to undertake tasks	Describe: An example of work you did that went well, the choices you made and the outcome Or something in your work that you were involved in which didn't quite work and explain why Or a technique, procedure or method you improved upon and explain why
	A2 Use appropriate scientific and fire engineering principles.	Drawing from your direct experience, this might be an explanation of how a piece of equipment, system or mechanism works



B	Contribute to the design, development, manufacture, construction, commissioning, operation and maintenance of products, equipment, processes, systems and services	B1 Identify problems and apply appropriate methods to identify causes and achieve satisfactory solutions	Show an example of how you have used measurement, monitoring and assessment to; Identify the source of a problem Or to identify an opportunity Or to propose a solution
		B2 Identify, organise and use resources effectively to complete tasks, with consideration for cost, quality, safety, security and environmental impact	Illustrate how you make decisions about; What information, material, component, people or plant to use Or how to introduce a new method of working Or what precautions you took Describe how you have contributed to best practice methods or continuous improvement e.g. ISO 9000
C	Accept and exercise personal responsibility.	C1 Work reliably and effectively without close supervision, to the appropriate codes of practice.	Your evidence should show how you identified and agreed what had to be done and to what standards on a typical project
		C2 Accept responsibility for work of self and others.	Your evidence should show that you can do the following; Demonstrate an ability to identify and agree criteria for the completion of designated tasks. Define responsibility of self and others to achieve criteria for designated tasks. Demonstrate an ability to evaluate the outcome of designated tasks.



		C3 Accept, allocate and supervise technical and other tasks.	Your evidence should demonstrate an ability to accept responsibility for the completion of designated tasks to time, resources and cost. Demonstrate an ability to accept responsibility for the quality of the outcome of work in which self and team are involved.
D	Use effective communication and interpersonal skills	D1 Use oral, written and electronic methods for the communication of technical and other information.	You should demonstrate an ability to clarify objectives, identify main purpose and select appropriate medium for communication. Be able to select appropriate methods of communication using words and images, audio and visual as appropriate. Be able to communicate competently in written and oral expression.
		D2 Work effectively with colleagues, clients, suppliers or the public and be aware of the needs and concerns of others	Give examples of how this occurred and your role at the time Describe your role as part of a team Describe a situation where you put your awareness of equality and diversity into practice
E	Make a personal commitment to live by the appropriate code of professional conduct, recognising obligations to society, the profession and the environment	E1 Comply with the Codes and Rules of Conduct	Demonstrate or discuss your position on typical ethical challenges



	<p>E2 Manage and apply safe systems of work</p>	<p>Provide evidence of applying current safety requirements, such as risk assessment and other examples of good practice you adopt in your work. You will need to show that you have received formal safety instruction relating to your workplace (such as a CSCS safety test in the UK) or an update on statutory regulations. In the UK an example would be COSHH requirements.</p>
	<p>E3 Undertake engineering work in a way that contributes to sustainable development</p>	<p>This could include an ability to operate and act responsibly, taking account of the need to progress environmental, social and economic outcomes simultaneously</p> <p>Examples would include methodical assessment of risk in specific projects, actions taken to minimize risk to society or the environment</p>
	<p>E4 Carry out and record CPD necessary to maintain and enhance competence in own area of practice</p>	<p>This means demonstrating that you have actively sought to keep yourself up to date perhaps by studying new standards or techniques, or made use of magazines, lectures organised by professional engineering institutions and other opportunities to network in order to keep abreast of change</p>
	<p>E5 Exercise responsibilities in an ethical manner</p>	<p>Give an example of where you have applied / upheld ethical principles as defined by your organisation which may be in its company or brand values.</p>



Planning Your IPD Report

The judgments made about an applicant during the Professional Review Process, are based on evidence submitted. In organising your IPD Report, you are advised to choose a small but significant number of projects or work activities that demonstrate how you have met the criteria.

The activities that you select should be:

- a) your own work, or larger pieces of work in which your personal contribution is clearly identified and substantiated.
- b) able to act as a 'spine' running through several of the A1 to E4 evidence examples.

An example of the use of such a 'spine' is in the B1 to B4 area, which deals with technical practice. Each of the criteria could be met through a totally different project but it would be simpler to organise and present your evidence if a consistent theme is used. This might then extend from the technical applications of the B area into some of the C, D and E activities.

The reviewers will be interested in what **you** have done, **your** role and responsibilities in particular projects and what **you** know about the technical aspects related to them. If you have completed Internal Training Reports as part of a company scheme, or just for your own guidance, you should use these to help you decide which projects or career episodes you can write about.

You will be expected to demonstrate competency with respect to **all objectives** but not necessarily all range statements or evidence examples.

Format and Submission of Your IPD Report

- a) Your report must be typed and printed on A4 paper, single sided only. It should be no more than 10 pages long. Please do not bind submissions or use ring binders.
- b) Your report should be written in the first person singular. Failure to do this may result in you not being given credit for something which is rightfully yours. In cases of doubt, the Review Panel will assume that there was third party involvement.
- c) Your report must be your own work and must be in English. It should be of sufficient length to demonstrate that you meet the relevant criteria.
- d) Any drawings or other supporting papers submitted must be folded to ensure that they do not exceed the dimensions of the report. Original drawings should not be sent as they cannot be returned and, once your application has been fully processed, they will be destroyed in accordance with Data Protection principles.
- e) All material submitted will be treated as confidential by the Review Panel and any other persons authorised to see it for application processing purposes. However, it is the responsibility of the applicant to secure any necessary clearance from employers or others for whom information contained in the report may be considered confidential.



How to Structure Your IPD Report

Begin with a short **introduction**. Your **introduction** to your report should give a general picture in a few sentences of the type of work and training you have done in your career to date. It should also **list**, in tabular form, the different **projects** or **career episodes** you mention in the body of your report. This will help the reader when you refer back to the name of a project you have already used elsewhere. For example:

Jan - June 99	Porsche Lane Apartments, W1	Luxury apartments - timber frame construction issues relating to fire safety.
Oct - Dec 99	Green Storage PLC, Anytown	Very large warehouse - compartmentation, personnel safety and fire fighting issues etc

Please do not put too much reliance on one project. Professional recognition is not narrow and job-specific; it requires a breadth of experience and an ability to transfer capability from one area of work to another. You need to show a reasonable range of work.

No matter how much material is available, it will only be valuable if it is indexed, cross-referenced and organised against the A1 to E5 criteria.

You must ensure that you have demonstrated an awareness of all of the IPD objectives. All of the elements must be present to some extent. However, the balance between them is a key judgment to be made by the Review Panel.

The **example layout** on the following pages deals with the first project and covers a variety of evidence examples across various IPD objectives but does not cover everything. The second and any subsequent projects will thus need to cover the remaining ranges of the principal objectives. In the example, notice how the candidate separates the project in his layout to help the reader summarise the key features of the project, before describing the details and clearly stating his own role and responsibilities in the project. The candidate **does not** describe every detail of what he / she did day by day, **but does** describe in detail the incidents which relate directly to the evidence examples he / she is claiming. In this case, these are activities in which he / she has identified and solved problems. The candidate repeatedly uses the **first person (I, me, my)** to show the reader what his / her **personal contribution** was in every case.

Please note that for a submission for Technician grade the expected length of the report would be between 6-8 sides of A4 typed.

Example layout of an IPD Report

Career Episode	IPD evidence example
<p>Porsche Lane Apartments, W1</p> <p>This project related to a six storey block of 24 luxury apartments with a Platform Timber Frame structure and an architectural masonry rain screen cladding. The building was planned with a single stair core serving each floor of the building via a protected lobby and the stair was specified with a softwood main structure and oak balustrading. The local</p>	



<p>authority rejected the plans on the grounds that the stair design did not comply, on fire safety grounds, with current requirements. At this point the Architect contacted us for professional fire engineering advice.</p>	
<p>My first task was to establish the nature of the local authority's concern and my first port of call, not surprisingly, was the published guidance that the local authority would be referencing. By virtue of the building size and geometry, statutory guidance published in Part B1 of the Approved Document B in support of the England & Wales Building Regulations recommends that the building be provided with a stair constructed of Materials of Limited Combustibility. This means that the materials used would have to satisfy the appropriate criteria of the British Standard BS476: Part 11 fire test. A stair constructed from timber cannot satisfy this requirement since timber materials, no matter how they are treated, will not satisfy the test criteria.</p>	B.3
<p>This presented the Design Team with a dilemma. One of the major advantages of timber frame construction is the speed at which the building can be erected and mixing trades in terms of providing a concrete or steel stair would introduce delays into the programme that could potentially effect the viability of the scheme, notwithstanding potential difficulties introduced by differential expansion of the different materials over the height of the medium rise building.</p>	A.2
<p>At a Design team meeting, I agreed a scope of work with the client (Developer) that involved confirming the concerns of the local authority; then working with the architect to develop, where practicable, a technical specification for a timber stair that would satisfy the client and the local authority.</p>	B.3
<p>I informally confirmed with the local authority that their concern related to the recommended performance criteria of Limited Combustibility for the stair. I also established with them the principle that, due to the functional nature of the Building Regulations, an appropriately justified alternative approach to published recommendations could be followed.</p>	C.1
<p>Since the Limited Combustibility guidance of the Approved Document B relates to Reaction To Fire performance, this implies a design fire scenario within the stair itself. The logic of this is inescapable in that fires do occur in stair shafts, generally in association with accumulated temporary storage of materials/goods and that are often ignited maliciously. It is therefore extremely important that the stair itself does not contribute significantly to fire growth nor exhibits loss of load bearing capacity under fire exposure. In terms of accommodation involving a sleeping risk, I determined that this load bearing capacity would be important to enable fire fighters' access to the building, initially to fight the fire and remove persons immediately at risk whilst being available to evacuate other occupants post-fire should this be deemed necessary.</p>	D.2 B.1
<p>A keyword search on the Internet yielded details of a government sponsored research project carried out on a medium rise timber frame building [1]. As part of this research a series of tests were carried out by project engineers that involved fires in a timber frame stair shaft incorporating a timber stair. The research tests, involving fire scenarios based on a simultaneous accelerant, timber crib and double mattress were successful (ie load bearing capacity of the stair was maintained) based on a wholly softwood timber stair treated with an impregnated fire retardant treatment to give a notional Class 1 Reaction To Fire Performance (BS476: Part 7).</p>	A.1



Career Episode	IPD evidence example
<p>Despite having discovered the potential solution, I was faced with the problem of applying the specific results of the research to the situation in hand that involved the use of an alternative timber specification (oak) for the balustrading. A discussion with the stair manufacturers revealed that the timber balustrading has to be of a hardwood specification in order to comply with the structural safety recommendations of Approved Document K. I gathered additional information through contact with the research engineers that indicated that their choice of using Whitewood throughout their test was by virtue of Whitewood representing an onerous timber specification in terms of its low permeability to the treatment process. Hence any more permeable timber would take up a greater quantity of the fire retardant thus maximising the field of application of the research test result. Consultation with industry timber experts confirmed that oak has a slightly better permeability than Whitewood and I sourced benchmark test data from the manufacturers of the treatment process that established treated oak as giving at least as good a test result in terms of BS476: Part 7 as treated Whitewood.</p> <p>I put together a report detailing a design fire scenario, the functional fire safety objectives, an analysis drawing on the available research and standard test data, and an executive summary. This was submitted to the Local Authority by the Design Team and was accepted by them as an appropriate solution allowing the client to proceed with a slightly modified timber and keeping the project on track.</p> <p>Onsite inspection of the works also formed part of my duties. Generally the work was undertaken by the contractor and the specialist sub-contractor in good order, but during one of my site inspections, I noted a sub-contractor position themselves between a joist and the rails of the basket. Movement of the lift could crush the worker. I immediately told the sub-contractor to cease work and to reposition the cherry picker as it was a risk to his safety.</p> <p>Whilst on site I was shown around the basement plant rooms including the large gas-fired boiler room. The building manager asked me to detail the fire safety and explosion prevention measures that would be required. I recognised that this matter is controlled under the Dangerous Substances and Explosive Atmosphere Regulations (DSEAR) and advised the client that this was outside my area of expertise and that I would refer this matter to a colleague who has the necessary qualification, training and experience.</p>	<p>A.1 B.1 B.2 D.4 D.1</p> <p>E.1</p> <p>E.5</p> <p>E.5</p>
<p>Green Storage PLC, Anytown</p> <p>This project</p>	