## **IChemE**

## **Chartered Member**

Stage 3 – Professional Review guidance for applicants





















#### Document control

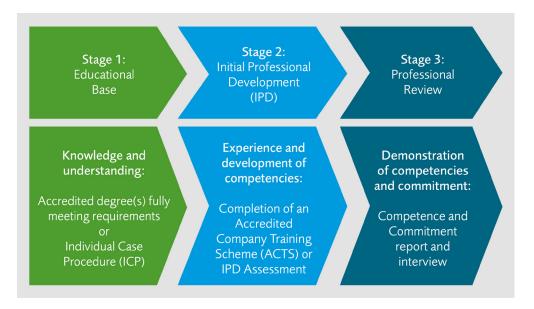
Version no.	Date issued	Changes
V5.0	March 2024	Updated Appendix C with protocol for loss of video during interview.
V4.0	January 2024	- Updated 'Referees' section. One referee can now be a member of another Professional Engineering Institution who is a Chartered Engineer (CEng) registered with Engineering Council. Added expectation that referees will have typically known applicant for at least one year prior to application - Updated 'CV' section on use of abbreviations and acronyms and CV should typically be less than three pages - Updated 'Photo ID' section, ID should be recent - Updated 'Writing your C&C report' section with general wording updates - Updated Section A–E guidance and examples - Updated 'The Professional Review Interview' section with general wording updates.
V3.0	January 2023	<ul> <li>- Updated name changes to committee and subcommittee structure throughout</li> <li>- Minor update to How long does the Professional Review take? section to reiterate the two week revision window</li> <li>- Minor update to Making an application section to reorder more logically and introduce new offline C&amp;C preparatory template for draft submissions purposes</li> <li>- Minor update to Writing your C&amp;C report section to reflect the move to an online C&amp;C submission form, word count increasing to 3800, new guidance regarding 'position of responsibility' question</li> <li>- Minor update to What happens if the professional reviewers request a revision to my C&amp;C report? section to reflect changes to the online C&amp;C form resubmission</li> <li>- Minor update to Registered Professional Engineer of Queensland (RPEQ) appendix as both professional reviewers are now required to be RPEQ registered themselves rather than just one previously</li> </ul>
V2.0	January 2022	Changes to Section C1 and D to cover changes to Engineering Council UKSPEC4
V1.0	March 2021	New document

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## Introduction to Stage 3 – Professional Review

There are three stages in the application process to become an IChemE Chartered Member which are shown in the diagram below:



Once you have fulfilled the criteria for Stages 1 and 2 of the journey to professional registration, you are ready to commence Stage 3, the Professional Review, which is the final step to becoming a Chartered Chemical Engineer.

The requirement for Stage 1 is either the necessary accredited qualifications or the successful completion of the Individual Case Procedure (ICP).

If you have successfully completed an IChemE Accredited Company Training Scheme (ACTS) then you have fulfilled the criteria for Stage 2 and you will only need to submit the ACTS Completion Form signed by both your ACTS Manager and your registered ACTS Mentor, which indicates that you have successfully completed the training scheme. Otherwise, you must submit details of your Initial Professional Development (IPD) for review.

Please note that the assessment of each stage is completed separately and independently, and the successful completion of Stages 1 and 2 does not guarantee success in Stage 3. If in doubt, please contact applications@icheme.org who will be able to tell you where you sit in the three-stage process. You do not need to complete Stage 1 before Stage 2, but no applications for Stage 3 can be accepted prior to the successful completion of Stages 1 and 2.

#### The Professional Review

The Professional Review is the final step the applicant takes in their journey to becoming a Chartered Chemical Engineer. It is where the applicant demonstrates the professional competence and commitment to become a Chartered Member of IChemE.

The Professional Review comprises an assessment of documentary evidence and a Professional Review Interview. The results of these are passed to the Virtual Election Panel of the Registration Subcommittee which is responsible for making the decision on your election and will let you know the results of your application.

In order to apply for the Professional Review, you must submit an online application including:

- Competence and Commitment (C&C) report;
- verification of the C&C report;
- appropriate references;
- CV;
- photo ID.

#### When and where will the Professional Review take place?

The Professional Review schedules for all grades of membership/registration are published well in advance for both your information and for the professional reviewers. You will find the schedules on the membership pages of our website.

You must first pay for your application and then ensure that all the required documentation is submitted by the published due date – submission is possible at any time, but documentation will only be reviewed following the next appropriate due date

The Professional Review Interview may be held face-to-face or virtually depending on the availability/location of all parties involved. You will be advised of the method of your interview in the course of your application.

#### How long does the Professional Review take?

As seen in our published schedules, each Professional Review is planned to take three months from the submission due date to the communication of the decision. In order to achieve the three month time frame, both you and the professional reviewers are required to adhere to the schedule.

This means that you must ensure that you have paid all fees, completed the online C&C report and had the sections verified, and received your completed referee reports by the submission due date.

At the start of the cycle, you will be given an interview date and the names of the professional reviewers assigned to your application for you to advise of conflict of interest.

The professional reviewers will assess your C&C report and, if necessary, provide feedback and request an amplification/revision. If this is the case, you will be given two weeks to revise, re-verify and resubmit the C&C report so it is important that you prepare for this eventuality.

The professional reviewers will then assess your revised C&C report and, if satisfactory, IChemE staff will send you a Microsoft Teams meeting link and the time for your interview.

In the event that your C&C report is not satisfactory following the second assessment, you will be advised of the next steps.

IChemE staff will promptly communicate the outcome to you by email following the meeting of the Virtual Election Panel. Where the decision is made that your application is unsuccessful, detailed feedback will be provided to allow you to address the points and reapply at a later date with a new application.

#### The professional reviewers

IChemE's membership processes operate on a peer review basis; this means that all aspects of the application are assessed and reviewed by suitably trained and experienced members of IChemE, who hold membership/registration at or above the grade for which they are conducting the review. They may come from any field of chemical engineering.

The professional reviewers will consider the application confidentially; they are bound by IChemE's Code of Professional Conduct, they will also recuse themselves in case of conflict of interest.

Two professional reviewers will assess your Competence and Commitment (C&C) Report and usually the same two professional reviewers will also conduct your Professional Review Interview. They therefore have a thorough understanding of the application.

Please bear in mind that the professional reviewers and members of the panels listed below are volunteers and often have busy professional lives; it is therefore imperative that you make every effort to read and apply this guidance thoroughly in order to get your application right first time. We also have a limited number of professional reviewers available, so if all slots are taken for a particular session, you may be asked to wait until the next.

#### The Registration Subcommittee

This subcommittee, comprised of members of IChemE, operate all IChemE membership election processes for all grades of professional qualification. During the meeting of the Registration Subcommittee's Virtual Election Panels, they consider the recommendation and evidence provided by the professional reviewers and make the final decision on whether to elect applicants.

#### The Standards Panel

The Standards Panel is a panel of the Registration Subcommittee with specific responsibility for overseeing the standards applied to the admission, readmission to and transfer of members within the membership roll.

## Making an application

You may not commence Stage 3 until you have met the requirements for Stages 1 and 2. When starting your application, you will be asked to confirm that you have adhered to all elements contained within this guidance document.

As mentioned in the previous section, to apply for Stage 3 - Professional Review, you must submit an online application including:

- Competence and Commitment (C&C) Report;
- verification of the C&C report;
- appropriate references;
- CV;
- photo ID.

#### Compiling your evidence

All applicants are required to submit a C&C report via the online form, please see the subsequent section for more information regarding its contents. We do provide a C&C report preparatory template which you may use offline to compile your report ahead of making your online application, although this is not compulsory. When you are ready to submit your report, you will enter/copy your entries into the C&C report sections of your online application and submit it for review.

#### Verification of your Competence and Commitment (C&C) Report

As part of the application and assessment process, the experience cited in your C&C report must be verified as a true account by another individual(s) in an appropriate position to you.

A verifier's role differs from the referees' – the referees are supporting the application to membership as a whole, whereas the verifier is confirming the experience cited in your C&C report. However, the same person can act as both your verifier and referee providing they fulfil the requirements for each role.

The person(s) verifying experience should have been:

- in a position more senior to you at the time of the work referenced;
- familiar with the work you were doing at the time.

They do not have to be:

- a member of IChemE;
- a Chartered Chemical Engineer;
- a chemical engineer;
- the referee;
- your current manager;
- in the same country as you.

When you have completed your C&C report online you need to send it to each of your verifiers (following the instructions provided in the application portal) together with the verification form for them to complete. Once the verifiers have sent their completed forms back to you, you will need to upload them to your online application.

You may provide multiple verifiers if necessary; all sections of the report must be verified.

Please note: the system will only allow you to upload one verification document, so you will need to collate multiple forms into one document before uploading.

#### Referees

Two referees are needed to provide a reference in support of your application for Chartered Member in accordance with By-law 33.

Your referees should ideally be current IChemE members in the grade of Chartered Member or Fellow. If you cannot find two Chartered Members or Fellows of IChemE, then it is acceptable for one of your referees to be a current member of another Professional Engineering Institution (PEI) who is Chartered Engineer (CEng) registered with the Engineering Council

You should identify suitable/potential referees at the soonest opportunity when your path to Chartered membership begins and ensure as far as possible that they remain aware of your roles during your professional career.

They will have sufficient knowledge of the level of skill, knowledge and experience that is expected of a Chartered Chemical Engineer and will be able to attest to your ability to meet the requirements for this grade of membership.

Verifiers of your application who meet the referee requirements may also act as your referee(s).

Your referees must:

- be willing to provide you with a reference;
- agree to provide IChemE with information;
- not be a member of your family;
- know your role or activities in detail, although they do not necessarily need to work with you currently.

Your referees will be asked a number of questions such as:

- the length of time they have known you and in what capacity;
- whether you are employed in a responsible post in chemical engineering;
- whether they would recommend your election, with brief comments to support their recommendation.

Typically, we would expect that referees have known you for at least a year prior to you submitting an application at Stage 3.

#### How can I find a referee?

If you don't know any IChemE Chartered Members or Fellows to support your application who meet the above criteria, you could try one or more of the following:

- get in touch with recent former colleagues or peers who may be Chartered Members or Fellows;
- meet with your local member group as early as possible to create good connections with local IChemE members, one or two of whom may then be happy to provide you with a reference when the time comes;
- contact your HR department who may hold a list of Chartered Member employees;
- if these approaches are unsuccessful, you should consider finding an IChemE mentor who is able to support your progress to membership and provide you with a suitable reference.

You must ask your referees to complete the referee form, then encrypt it, and send it to you so you can upload as part of your application. The referee must then send the password for the document to applications@icheme.org stating 'referee password/<your name>' in the subject line of the email.

#### CV

For data protection purposes, we request that you remove contact details and date of birth from your CV prior to submission. If you do not do this, the professional reviewers will have access to this information.

Your C&C report should be able to stand alone on its own merit, but the CV can be used to help professional reviewers to understand the background and provide a more detailed context of any projects or work activities referenced in the C&C report. It can also be used to clarify any acronyms used in the C&C report.

It is strongly recommended that you prepare a tailored CV, in the first person, to support your Chartered application. Although similar to the CV used for a job application, there are stylistic differences to consider:

- list professional skills and background clearly and concisely;
- avoid business jargon and abbreviations/acronyms (unless explained) the professional reviewers may not work in the same field as you;
- you should only mention the work you have completed you should not include work done by others;
- write in the first person: 'I wrote', 'I presented' etc;
- do not include contact details, date of birth or photograph;
- your CV is to provide background for the professional reviewers and therefore will not be assessed; however it must be an accurate and true representation of your career;
- the supplied CV should not be overly long, typically less than three pages.

Also, regarding activities outside of work, please only include those which support your application such as IChemE events; STEM/schools liaison; engineering, commercial or leadership activities, and not hobbies unrelated to engineering.

If you wish to include a list of publications or papers, this should be included within the CV.

#### Photo ID

You must upload a scanned copy of your current passport, photographic driving licence or other verifiable photographic ID. Please ensure the photographic ID is recent.

Your identity must be checked at the outset of the Professional Review Interview, via a visual check of the photo ID against your appearance (either in person or via video weblink). The professional reviewers provide confirmation of this as part of the Professional Review Interview process.

#### **Payment**

You may only submit your application once full payment has been made. You will be charged a membership application fee, and should you also seek registration as a Chartered Engineer (CEng), a registration fee should your application be successful.

For existing members upgrading to Chartered Member, any outstanding/overdue subscription payments must also be settled before submitting your application.

Any membership application fees are non-refundable.

For any questions related to fees, please contact applications@icheme.org

#### Your interview slot

You will be informed by IChemE staff of the time and location/method of the interview. In advance of submitting your application, it is vital that you've checked the published schedules to ensure that you are available for the period where the interviews will take place.

#### Getting help

We have staff in the UK, Australia and Malaysia on hand to answer any procedural questions. Please contact applications@icheme.org.

For assistance with the contents of an application, we strongly recommend that you work together with a mentor. We encourage you to contact your HR department in the first instance; otherwise, local member groups and special interest groups may offer an opportunity to find a mentor. If these options are not viable for you, please contact membergroups@icheme.org.

# Competence and Commitment (C&C) Report

#### Writing your C&C report

You must complete the report in accordance with these guidelines and provide evidence via your professional practice that you meet the requirements as outlined in this guidance document.

If you completed Stage 2 - Initial Professional Development via the self-managed route, we strongly recommend that you refer to this when preparing your C&C report. Your IPD assessment has confirmed that your experience to date is likely sufficient for you to be able to demonstrate the IChemE competencies. Stage 2 IPD is an assessment of what work you have done and the Professional Review is how you have applied your knowledge and experience to real problems in your workplace and how successful this has been. Your C&C report should build on the experience you have evidenced at Stage 2 so you should consider carefully how you word the examples in your C&C report to demonstrate the depth and breadth of your competence.

If your report does not meet the requirements, or if the professional reviewers require further information, you have one opportunity to make corrections and re-submit the report within the published timeframe.

#### Important:

- your report must be in the range of 3000 to 3800 words and each subsection of the report should broadly be of the same length;
- your report must accurately reflect your own experience;
- you must be able to discuss the work described in the report in further depth at interview.

#### You must:

- be concise across all sections using clear, correct English (note that the ability to communicate effectively with others, at all levels, is a requirement of becoming a Chartered Chemical Engineer). If English is not your first language, we suggest that you have your C&C report reviewed for use of English prior to submission;
- bullet points may be used to clarify a sequence of events in a problem, or to list a brief number of related examples to help the professional reviewer better understand the role taken/experience gained but otherwise full sentences are required;
- minimise the use of abbreviations/acronyms (clarify in the CV or explain them in full when first appearing in the report);
- show application of chemical engineering principles (primarily in Section A); it has been observed that some applicants fail to show adequate understanding or application of chemical engineering knowledge in the support of their examples. You should recognise that whilst you may be carrying out responsible tasks, the examples you provide in sections A and B in particular must be within a chemical engineering context. If in doubt, you should ask yourself 'why did it take a chemical engineer to conduct this task?';
- write the report in first person singular so that your role and actions are clear ('I did', 'I designed', 'my report...' etc) and avoid the passive voice;
- check for consistency between the report and additional details in your CV;
- emphasise what YOU actually did for each example.

#### You must not:

- plagiarise others' work (ie from the internet, IChemE website examples, a colleague's application);
- use more words than necessary. An application which exceeds the word count may be returned for update/ redraft;
- copy content from your IPD Submission to your C&C report and assume this is sufficient. You need to consider carefully how you word the examples in your C&C report to demonstrate the depth and breadth of your competence;
- write the report in third person (singular or plural) or in the passive voice so that your own role and actions are unclear;

- use words like 'we' or 'they', where it results in your own specific contribution being unclear;
- exaggerate your role or importance in the task being described;
- spend too much time explaining the context of the example, thereby unnecessarily using valuable words which should be used to provide details of the actions you performed (your CV can give the context if needed);
- talk in generalities ('I've been involved in many projects....', 'I have several examples...') specific examples are required;
- expect the professional reviewer to 'read between the lines' and make assumptions about your experience and competence;
- forget to spell-check the application before submitting;
- have a large imbalance in the length of each subsection. You should aim to use roughly the same number of words in each subsection of the form.

Professional reviewers are only able to perform their assessment based upon the evidence you provide – it is therefore imperative that you clearly lay out your experience within the C&C report.

#### What happens if the professional reviewers request a revision to my C&C report?

The professional reviewers might decide that the C&C report you have submitted requires one or more sections to be clarified or expanded, in which case you will be informed by email with feedback to explain what changes are required. To accommodate the requested revision, the word limit can be extended to 4500.

You will do this by logging in to the application portal and updating the specified sections (highlighted red) which will be made editable for you to do so.

Please submit the updated sections within two weeks of receipt of email request for revision. Failure to do so will mean that we will not be able to progress your application along agreed timelines, and your application may be closed in which case you would need to submit a new application at a future date. In case of extenuating circumstances, please contact applications@icheme.org.

If you are asked to update one or more sections of the report, the professional reviewers will provide detailed feedback by email on the clarifications required – please take careful note of this and ensure you address each of their points, as you will only have one opportunity to revise your report. If you do not fully understand the feedback, or need additional information on the changes asked for, please contact applications@icheme.org

You will be required to obtain re-verification of these revised sections (only). Where the original verifier is unavailable within the timeframe, you may approach an alternative verifier, providing they fulfil the criteria listed in the verification section of this guidance. Should obtaining verification of revised sections of your C&C report within the required timeframe still prove challenging, please inform IChemE immediately and the professional reviewers will consider your case.

Where the revision is still deemed unsatisfactory, the application will be sent to the Standards Panel and VEP to determine the next step. The most likely outcome if a revised C&C report is deemed unsatisfactory is that your application will be closed and you will need to re-apply at a later date. You will be provided with feedback on the reasons why your report was deemed unsatisfactory.

#### Confidentiality

You must use the C&C report to demonstrate to IChemE that your individual competence meets the required level expected of a Chartered Chemical Engineer. The professional reviewers need to understand the technical aspects of your work and the engineering challenges involved, so while you should be specific about what you did, you should not disclose confidential information contrary to your employer's confidentiality policy. This applies to the contents of your CV, too.

Note that professional reviewers are bound by the IChemE Code of Professional Conduct and the Data Protection Act 2018.

# Section-by-section guidance and examples

#### Position of responsibility

At the start of the C&C report the applicant needs to provide a brief explanation of how the roles currently or previously held demonstrate a position of responsibility. A position of responsibility does not necessarily mean one that involves formally leading or managing others, or budget holding, although you may have these responsibilities in roles you hold or have held.

A position of responsibility is one in which you have a level of self-direction and autonomy about how you perform your work and that you are individually responsible for the technical consequences of your own work and technical judgements. It is expected that you will normally be managed by others and that your work will be subject to appropriate checks and approvals.

You should describe, for one or more roles, those attributes which demonstrate your self-standing and accountability for your work. Should you have them, you can include responsibilities such as checking or approving work of others, coaching/mentoring others, supervisory and budget holding duties.

### Section A: Evidence of applying your knowledge and understanding to practical situations

Provide evidence of your ability to apply chemical and related engineering knowledge and understanding of engineering or science to practical chemical engineering situations.

The examples provided must involve, and you should describe the use of chemical engineering principles and knowledge at an appropriate level of complexity and difficulty. Some inclusion of other knowledge, in disciplines related to chemical engineering can be appropriate, but the focus should be on demonstrating your chemical engineering knowledge and understanding. Having an awareness of methodologies, the use of standard formulae or data entry into standard spreadsheets of other models, without an apparent understanding of the underlying chemical engineering principles, does not demonstrate adequate experience. Examples involving the use of modelling tools are generally expected to refer to how results were validated.

It is generally advised to avoid using the same example more than once within Section A, although it is reasonable to use different examples from the same project or task.

You may consider examples of chemical engineering principles which include, but are not limited to:

- laws of conservation;
- fluid dynamics;
- thermodynamics;
- mathematical modelling;
- economic evaluation;
- understanding of process technologies;
- understanding of underlying chemistry;
- systemic approach to safety and sustainability in process design;
- systemic approach to the engineering analysis of systems.

We recommend for each subsection in Section A that you provide two examples or a single complex example which involves more than one chemical engineering principle. Provision of more than two examples is likely to mean that you have insufficient word count available to provide sufficient detail in the report to satisfy the requirements.. Additionally, consider if you need to support your evidence with one or two bullet point examples to show breadth. Examples which do not contain sufficient chemical engineering related evidence are unlikely to be accepted.

A1. Applying appropriate theoretical and practical methods to identify or define a problem, opportunity or project

#### What the professional reviewers look for:

Professional reviewers look for application of chemical engineering principles and theory in identifying a problem and how they were able to arrive at its solution or in identifying and defining an opportunity or project and how to tackle it.

#### **Examples:**

How are you proactive in anticipating problems in your work and how do you subsequently go about overcoming these problems or finding solutions? Please specify particular calculations, research, analysis modelling etc you may have used in your work (you do not have to include workings or appendices) highlighting areas of complexity.

#### You may consider:

- designing experiments to study heat transfer rates in a fluidised bed combustion chamber;
- selecting design codes for a vacuum vessel and pipework;
- specifying process and equipment modifications to update a pharmaceutical water system;
- identifying thermal cycling problems and developing an improved control system.

#### You might write:

I used the Joukowsky Equation to calculate the magnitude of the surge pressure expected in a pipeline and...

A2. Combining ideas and contributions of different people and disciplines to arrive at appropriate engineering, technical or scientific solutions

#### What the professional reviewers look for:

As well as reference to chemical engineering principles, the professional reviewers will look for you to explain the technical advice you sought from other disciplines, how you applied their advice in advancing your task and, where appropriate, re-engaged with them to achieve the outcome. If you describe an example where you were part of a team, you should explicitly describe how you contributed and what tasks you performed in conjunction with other's contributions to achieve the team outcome, bearing in mind the need to articulate your use of chemical engineering skills and knowledge.

#### **Examples:**

Convey your ability to obtain information from an interdisciplinary team with which you need to work collaboratively, including other engineers, scientists, specialists, public authorities, finance, sales and marketing, in order to come up with the appropriate engineering solution. How do you identify the right people to source information/advice from and use the skills and knowledge of others to arrive at an outcome that you would not have been able to achieve individually?

#### You may consider:

- obtaining data from a multidisciplinary team of chemists, biologists and controls engineers to solve a fermentation problem in protein packaging;
- providing a key contribution to a team of chemists, engineers and operators to commission an automatic chemical analysis system;
- consulting reservoir engineers to obtain operating forecasts, and uncertainties, and use them as part of process design calculations.

#### You might write:

I was responsible for sourcing information from geologists and petrophysicists that allowed me to develop a cost effective and optimised well design by analysing...

A3. Displaying creativity and innovation: developing your own ideas to produce new engineering, technical or scientific solutions, new designs and new technological approaches

#### What the professional reviewers look for:

Professional reviewers look for you to highlight the creative elements of the approach you have taken to developing solutions in chemical engineering applications, or the novel aspects you have included in your work, as well as detailing the chemical engineering skills and knowledge employed to reach the outcome.

#### Examples:

Consider how you make improvements and modifications to your ideas, designs, technical solutions, looking at reducing cost or improving efficiency or any general improvements to a design or problem that is in front of you. You are not expected to be registering your own patents or inventing new formulae. Think about the benefit of the design that you come up with. Think about how you approach a new or novel approach within your role and what were the specific outputs. Draw upon comparative situations and linking to proven solutions. Look at how do you overcome these issues by being creative and innovative within your role. Consider how you identify technologies or approaches that have been applied in another industry or sector and how they can be adapted or modified and applied to your own situation. You may consider:

- developing new commercial standard design software for gas absorption processes;
- developing new materials for artificial organs;
- commercialising a novel consumer washing powder at production scale;
- recommending and installing advanced process control to improve plant performance.

#### You might write:

I found a new approach in the technical literature to a long-standing problem and investigated how to apply this...

A4. Undertaking scientific or technical evaluation and optimisation (of product, process, equipment, method, project etc) against the requirements you identified, or the brief you were given

#### What the professional reviewers look for:

Professional reviewers look for the remit or requirements of your task and how you conducted a technical evaluation or optimisation study/activity considering the various influencing factors, available variables to be adjusted, practical/contractual limitations and constraints and desired outcomes using chemical engineering skills and principles.

#### Examples:

Talk about how you use chemical engineering to ensure your solutions are safe and feasible before you implement them. If you have had access to data from a processing operation, explain in this section how the materials being processed behave in practice. Show how you undertook scientific or technical evaluation and optimisation against a given requirement utilising chemical engineering principles and using an evaluative approach; this could be in regard to a process, product or piece of equipment, considering it versus the brief requirement; cover how the solutions you come up with are safe and are feasible, and write about how you approach the particular evaluation, and also the chemical engineering skills that you drew upon during that evaluation stage. You should explain the practical, commercial or other constraints and limitations present and how you considered them.

#### You may consider:

- carrying out sludge dewatering trials to select the most appropriate processes;
- evaluating alternative control schemes for a pasteuriser using a simulation system;
- assessment of the effect of raw material quality changes on expected plant performance;
- identification of credible overpressure scenarios for a compressor and calculation of relief rates required for each to determine the controlling case for design;

- analysis and assessment of operating data to identify a problem/trend in performance of process plant;
- modelling and analysis of distillation column operating conditions and controller set points to maximise recovery of high-value products.

#### You might write:

I measured flow and concentrations to produce a mass balance for identifying, then reducing, materials losses...

A5. Planning and executing projects: organising or performing technical work to implement or validate solutions, designs etc

#### What the professional reviewers look for:

Professional reviewers look for how you plan and execute your tasks, and/or those of other people, taking into consideration scheduling, resources, priorities, contingencies, budgets etc, within a chemical engineering application environment in order to achieve the outcome. Some explicit demonstration of chemical engineering principles / knowledge / skills is required within the examples provided. Submissions which solely contain examples of 'project management' skills are unlikely to be accepted.

#### **Examples:**

Talk about your contribution to the delivery of chemical engineering related projects and specify if you were the discipline or technical lead. Ideally, a few years into your career you should have experience of working on various stages of a project, eg from planning and research, to development and implementation to manufacture or marketing and sales etc. Write about your experience at multiple stages of project planning and delivery and you might like to make reference to some commercial aspects. Talk about your contribution to carrying out work to validate / confirm designs and planned activities, and how your work can or did affect the outcome in terms of planning and work management. You should illustrate how your tasks, and those of others that you were accountable for managing, fitted into the context of the project or overall task (including use of company management and project processes/procedures) and how you considered and factored in the constraints imposed - eg budget, schedule and resource. You might make reference to specific project management skills that you applied to manage your own work or that of others.

#### You may consider:

- devising changeover procedures to convert to new control hardware and alignment with planned plant downtime for implementation;
- commissioning an acid plant conversion section and comparison with designs;
- validation of air handling and gas filtration system design as part of a programme to erect a new clean room manufacturing facility;
- managing the development of piping & instrumentation diagrams (P&IDs) for new projects within project timescales;
- developing performance tests and acceptance criteria for a new plant and adding them to the project plan and schedule.

#### You might write:

I developed a proposal to change the location of the H2S scavenger injection point to improve performance and progressed this through the company management of change (MoC) process...

## Section B: Evidence that you are able to handle the wider implications of your work as an engineer

Demonstrate your awareness of the safety, environmental and commercial implications of your work. Developing awareness does not mean that you need expert experience working as a safety engineer, environmental consultant or project manager – these issues should be inherent in the work of any chemical engineer.

We recommend that for section B1, that you should typically provide three to five diverse examples demonstrating a range and breath of appropriate safety related activities. For sections B2 and B3 we suggest that you provide two to three examples. The level of technical detail in your examples for section B may be lower than that given in section A, and in your submission you should explain the implications of the situation with relation to safety, sustainability, commercial etc aspects and how your work took these into account.

B1. Ability to handle health, hazard and safety aspects: to apply appropriate principles, good practice, meet legislative requirements etc

#### What the professional reviewers look for:

This section is a critical requirement for successful application for Chartered Chemical Engineer status. Professional reviewers look for knowledge and breadth of experience, where you identify, evaluate and address process safety issues in research, design or operation, contribute as a chemical engineer in structured process hazard evaluation, show a clear understanding of the legislative requirements and the wider impact that safety related issues can have.

In general, the examples you provide should be related to engineering process safety, and should avoid examples of occupational safety unless there is a clear linkage to engineering and process risk.

#### Examples:

Show experience of systematically evaluating either a new design or an existing process to identify, evaluate and address process hazards. Give direct examples that describe your contribution to ensuring safety and health in process operations (which may include laboratories) and could be development, pilot, or full scale, with an emphasis on engineering and process safety. Demonstrate how you apply key principles and legislation and good practice regarding health and safety. If you work in different parts of the world and projects take you internationally, think about differences in compliance requirements, regulation and legislation and how you manage those differences. Demonstration of selecting and applying appropriate standards to ensure a safe design.

#### You may consider:

- risk registers, safety inspections, compliance to regulation and legislation;
- attendance and contribution to any kind of process hazard analysis review meeting (eg HAZOP, HAZID, HACCP, "what if..." etc) or similar structured quantitative, semi-quantitative and/or qualitative risk assessments:
- management and control of hazards eg risk assessment, LOPA/SIL assessment;
- identification of overpressure scenarios and the subsequent design of pressure relief systems to required standards (eg API 520/521), design of emergency flares and fire-fighting systems;
- delivering training in the correct application of safety principles and procedures in any practical situation (on an operating site, in construction, in a laboratory etc);
- understanding of HSE legislation (eg H&S at Work Act, COMAH, COSSH or other local country legislation);
- experience with construction, commissioning and operating plant safety management systems permit to work system, handling of hazardous materials, safety risk assessments etc;
- specific design activities vent dispersion analysis, explosion modelling, hazardous/flammable emission detection systems etc;
- auditing safety compliance of a pilot plant used for teaching in a university;
- carrying out an investigation into a boiler explosion;
- undertaking or taking part in a Quantitative Risk Assessment (QRA);
- carrying out failure mode and effect analysis (FMEA) studies.

#### You might write:

I represented the process design of my project section in a HAZOP review and explained the design basis for the reactor relief valve...

B2. Ability to handle sustainability aspects: these could include environmental, public concern and other societal issues, recognition of risks etc

#### What the professional reviewers look for:

Professional reviewers look for evidence that you recognise factors having environmental, public or societal impact in order to demonstrate an ability to handle sustainability aspects, and that you use chemical engineering principles to manage (identify, evaluate, control or mitigate) these issues within research, design or operation.

#### **Examples:**

Demonstrate the sustainability aspects of your role and how you manage environmental concerns, recognition of risk, and public or societal issues. Examples of this could be things like reducing waste – whether that's air, water or other types of pollution; emissions; impact assessments; sustainability analysis. Consider how you addressed issues that might affect members of the public who live and work in proximity to your plant/operation.

#### You may consider:

- investigating the bio-remediation of contaminated soil;
- preparing environmental impact assessment documents for a solvent plant;
- implementing and monitoring an ISO14000 environmental management system at an oil refinery;
- analysis and investigation of ways of reducing energy use;
- undertaking or taking part in an Environmental Impact Assessment (EIA);
- creating technical content for a MATTE (major accident to the environment) assessment;
- contact with the public regarding the resolution of an environmental issue;
- presenting a clear appreciation of the environmental impact and mitigation factors in the design implementation of any new project;
- undertaking design work to remove a sold/liquid/gaseous effluent problem;
- involvement in reduction or better utilisation of waste material or energy streams, contributing to better sustainability;
- specific design activities such as environmental noise mapping, design to mitigate fugitive emissions (seal systems) etc.

#### You might write:

I ensured that plant emissions controls complied with best available technology by evaluating...

#### B3. Ability to handle commercial and economic aspects

#### What the professional reviewers look for:

Professional reviewers look for evidence of commercial and economic aspects through sales and business management tasks you may have undertaken or demonstration of commercial and economic considerations in conducting evaluations, managing tasks and projects and arriving at solutions or running/supporting operations.

#### Examples:

Demonstrate your experience in the economic evaluation of a process or a plant design that you are involved with, and procurement activities including cost estimation, tendering for bids, managing budgets or managing people resources. Demonstrate how plant operations are run in order to comply with relevant commercial agreements and legal obligations.

#### You may consider:

- devising a spreadsheet to optimise refinery product mix schedules based on market price data;
- estimating capital and operating costs for alternative designs;
- carrying out an insurance risk assessment for a novel manufacturing process;
- assessing the cost implication of loss of yield versus shut down costs for cleaning;
- gaining experience in a sales or marketing role (eg as part of a training rotation);
- gaining experience in a cost estimating and/or procurement role;
- undertaking a technical-commercial optimisation study to find an economically feasible solution;
- planning and managing a small project, or part of a larger project, in terms of schedule, staff/cost budget, equipment costs etc;
- tendering for the purchase of chemicals and equipment for a research laboratory;
- developing start-up sequence for a plant with multiple third party feedstocks to balance competing issues of efficient start-up operations and commercial agreements.

#### You might write:

I set out the cost and non-cost implications of introducing a further production line on site...

#### Section C: Evidence of your interpersonal, leadership and communication skills

Convey how you effectively communicate and work with professionals at all levels. How do you ensure your colleagues know what you are doing and how do you gather information on issues concerning you?

We recommend for sections C1 and C2, that you should generally provide two or three examples. You might consider adding an additional bullet point example to show breadth. For section C3 we recommend providing three to four examples, which should include both oral and written communication.

C1. Managing interpersonal communications and relationships including demonstrating an awareness of diversity and inclusion

#### What the professional reviewers look for:

Professional reviewers look for evidence of specific interpersonal techniques you apply in building, managing and sustaining your interpersonal relationships within teams, with juniors, peers, managers, clients, vendors etc and how, for example, you may have managed a difficult situation within a work based scenario. Professional reviewers are also looking for information on why particular approaches and techniques were used and why they were the most appropriate for the situation. You are expected to provide evidence in this subsection that demonstrates an awareness of diversity and inclusion issues.

#### **Examples:**

Many roles involve the effective use of teamwork, and you should demonstrate your effectiveness in managing interpersonal relationships when working in a team environment. This may be in a project setting but can apply to working with others (including other disciplines and non-engineering professions) on an operating plant or in an academic environment.

Give specific examples where your contribution had an important effect or impact, rather than simply 'working in a team'. How does the development of professional relationships impact on your ability to do your job successfully?

Think about how you manage challenges within that particular team, how you resolve conflict, whether you need to be culturally aware within a particular project and how you adapt your communication style in order to achieve objectives across teams.

Consider how you have successfully established, built and maintained one to one working relationships, or dealt with conflict. You might consider how you have had to adapt your usual working style to take account of the other person or the context of the situation. Consider how diversity and inclusion issues affect how you conduct yourself and how they impact upon your work.

#### You may consider:

- addressing a conflict between yourself and another person, or between two other team members;
- working with external clients, contractors, suppliers, regulators or other organisations;
- engaging with a new team to establish professional working relationships;
- being mindful of home-schooling demands during lockdown and making allowance for young children interrupting virtual meetings or being mindful of religious holidays and avoiding scheduling meetings during these;
- being mindful of the diversity of the team and avoiding team building events in pubs/centred on alcoholic drink where this might make some members of the team feel uncomfortable;
- encouraging everyone to speak up in a meeting being careful to not allow a few to dominate; including comments written in the chat during virtual meetings as not everyone wishes to verbalise their comments;
- welcoming and acknowledging each opinion irrespective of where it comes from; encouraging others to be open and listen to ideas especially if different from their own;
- challenging behaviours that might exclude others from engaging and participating; being prepared to provide feedback to others who might not have noticed the consequences of their actions/behaviour.

#### You might write:

Following production difficulties, I promoted a project aimed at continuous improvement within a staff group by...

#### C2. Demonstrating leadership in a professional role

#### What the professional reviewers look for:

Professional reviewers look for evidence of mature competence where, using your chemical engineering skills, you have demonstrated technical leadership in a professional capacity, including for example going beyond your remit by taking responsibility and following through on problems identified, or have been given accountability for achieving completion of work by others. Evidence of team management may be used as supplementary evidence. Professional Reviewers look for information on the specific leadership skills and techniques employed and why they were selected and appropriate for the situation you describe.

#### **Examples:**

You should demonstrate abilities in making decisions that require an expected level of maturity. Such decisions could be primarily in a technical context (eg resolving an operating problem or making a design decision about a piece of equipment) or by supervising a group of engineers. It could also be demonstrated in the training of junior engineers.

You do not necessarily have to be the manager of a team of engineers to demonstrate leadership. Applicants on a quality graduate training scheme (with IChemE accreditation for instance) may be able to demonstrate the required level of competence relatively early in their career, and many will not have had experience of managing their peers or leading teams

Think of other ways you demonstrate leadership, for example working pro-actively as an individual eg initiating projects, delegating work, training your peers, providing direction to operators or technicians. Perhaps you have been involved with the training of other engineers or junior members of staff, perhaps you have led the promotion of chemical engineering say at a local school, university or community outreach program or event.

#### You may consider:

- ensuring that variations from quality standards, programme and budgets are identified and that corrective action is taken;
- agreeing objectives and work plans with teams and individuals;
- leading and supporting team and individual development;
- leading a technical review.

#### You might write:

When I was working at a chemical plant, I conducted several process upset investigations...

#### C3. Communicating ideas and plans by report writing and oral presentation

#### What the professional reviewers look for:

Professional reviewers look for evidence of the ability to communicate with professionals and others at various levels by transfer of ideas, plans, facts and technical data through written reports and oral presentations. They are looking for information on how and why the communication type, style and content have been tailored considering both the audience and the purpose.

#### Examples:

The ability to present ideas, facts and experiences in a clear and concise manner is an important aspect of being a professionally qualified engineer. You should give evidence here of writing and editing reports and oral presentations (not necessarily technical) that you give to different audiences, such as technical sales pitches, stakeholder communications, regulators and funders, and how you adapt your presentation delivery for different audiences. Work completed for a PhD, EngD or other academic research may be relevant.

#### You may consider:

- writing a user requirement specification (URS) for a control system;
- delivering a presentation to peers/supervisors;
- preparing/presenting a technical paper, report or seminar (eg at an event or conference);
- writing screen displays for an acid plant conversion to computer control;
- provision of technical guidelines to assist in product selection;
- presenting alternative design options to senior management;
- supporting a sales presentation.

#### You might write:

I devised a slideshow of the implications to the plant of a new product variant, which I specifically tailored to recognise different senior managers' interests...

### Section D: Evidence to show that you are committed to high standards of professional and ethical conduct

Demonstrate a personal commitment to professional standards, recognising obligations to society, the profession and the environment

We recommend for section D1 you provide three to five examples to show a range of examples and situations. For section D2 we recommend one or two examples.

#### D1. Professional conduct

#### What the professional reviewers look for:

Professional reviewers look for evidence of your knowledge and use of professional standards, your commitment to quality in ensuring that yours and others' work is to a recognised standard and that you seek to support and promote the profession.

#### Examples:

Demonstrate your commitment to ensuring that your work is of the highest possible standard and that you seek continuous improvement and advancement in your work, both as an individual and by engaging and participating with the wider profession. You should include use of technical and engineering standards in the examples provided.

#### You may consider:

- adherence to your organisation or company quality management system and its approved procedures;
- professional activities over and above your core role;
- mentoring or encouraging others to maintain competence;
- identifying and providing feedback and lessons learned to improve technical standards;
- awareness and compliance with relevant code of conduct to your work activities over and above your core role:
- support to wider profession in member group activities, science and technology initiatives, school outreach etc;
- promoting diversity and inclusion in the workplace to support the wider profession.

#### You might write:

Whilst working on a design activity I identified a conflict between my company technical standards and those of the client... I am active within my local member group and have organised various technical seminars on the subject of (...) to help others gain an understanding of this field.

I have volunteered in my community to promote engineering to school children with the aim of securing the next generation of chemical engineers.

I have trained younger engineers in ... as part of an ongoing scheme to ensure competence across my company.

#### D2. Ethical decision making

#### What the professional reviewers look for:

Professional reviewers look for evidence of your integrity as an engineer in the decisions you make relating to the tasks you undertake and the application of ethical decision making within a work-related or professional scenario. Explanation of the most relevant ethical issues in your role (and what conflicts might arise) and how you have applied any ethics based learning you undertake to real examples may be used as supplementary evidence.

#### Examples:

Give direct examples which illustrate your personal and ethical commitment of working to ethical and professional standards laid out by IChemE, your company or organisation, and of the wider community.

#### You may consider:

- the IChemE Code of Professional Conduct and the Engineering Council Statement of Ethical Principles; how this impacts on your behaviour and influences your decision making;
- issues of commercial confidentiality;
- issues of personnel confidentiality;
- avoiding conflict of interest;
- knowledge and application of company codes of conduct/standards/behaviours/values.

#### You might write:

I faced a professional dilemma when my company secured a contract with my previous employer, so I...(your response)

While overseeing the installation of a new catalyst into a reactor, I resisted pressure from more senior operating staff to dispense with certain safety checks despite their concerns about this leading to a delay to start-up by.....

#### Section E: Continuing professional development (CPD)

In this section you should outline your recent development and short to medium-term development plans. You should also describe the received and potential benefits associated with these goals. You will also need to describe how you identify and plan your CPD, and how you record activities carried out.

We recommend you provide sufficient number of examples to reflect a range of CPD undertaken and planned.

#### E1. Report of recent CPD already undertaken (eg within last two years)

#### What the professional reviewers look for:

Professional reviewers look for information on how you record your CPD and evidence of CPD undertaken which demonstrates systematic identification of development needs, acquisition of knowledge and skills, and the development of personal qualities, to maintain and enhance professional competence, both technical and non-technical skills (eg business, interpersonal etc).

#### Examples of CPD activity types:

- in-house/external training courses (online or face-to-face);
- attending/delivering activities run by IChemE member groups or special interest groups;
- on-the-job learning;

Briefly describe the methods and tools you use to

- experience of working in different disciplines within chemical engineering;
- research/publishing. Make a note of what it was, why you did the research and what was the outcome how did you use the research within your role.

It is likely that you are already logging your CPD either in *mycareerpath* or your company's own career development tool, so extracting the required information should be straightforward.

#### Examples:

The questions contained in the C&C report are shown below, along with an explanation of the type of evidence needed for each.

Explain how you maintain your record of CPD activities

record your CPD activities.	undertaken. Your recording should include details of activity, type and when and where carried out. Both planned and unplanned CPD should be recorded. Examples of actual CPD activity should not be listed here. See IChemE's website for more information: www.icheme.org/cpd
Describe the significant CPD activities you have carried out in the last one-two working years.	Provide details of the significant CPD activities you have undertaken in the recent past, which should include brief description of the activity and content, duration and delivery method. These would normally include activities from the broad range of CPD activity types (training courses, work based (on the job), academic learning, volunteering, events/
	seminars and self-study etc).
For each activity listed, describe the purpose/	
objective of carrying it out and the benefits you gained from it.	For each activity, please give a brief description of the purpose/objective that lay behind the activity being performed, and what key benefits you gained by carrying it out.

#### E2. Future CPD plan.

#### What the professional reviewers look for:

Professional reviewers look for your ongoing approach and commitment to CPD. This will include providing details on needs identification, creation of specific CPD development objectives and turning the development objectives into a viable and resourced CPD plan for the upcoming period.

#### Examples:

Briefly describe the method and approach/tools that you use to identify your CPD development objectives, and how they are turned into an actionable plan.

Give a brief outline of the process/steps you follow to create your CPD objectives and create a viable plan.

You should include as appropriate (a) how your CPD needs are identified and prioritised, (b) how and with whom they are agreed (if required), and (c) how those objectives are then turned into a plan which can be put into action.

This process will vary depending on your own personal circumstances and may refer to your employer's annual development review process and tools. Where appropriate, links to longer-term career plans should be included.

Describe the development objectives that you have identified to be addressed in the next one—two years and the purpose of each one.

For each objective listed, describe what activities you plan to carry out to achieve them and the expected timescale.

Give a brief description of the key development objectives that you have identified for the upcoming period, and explain why those particular objectives were chosen.

For each objective, please provide brief details of the activities you will undertake to complete each one and give an indicative timescale for each objective.

## The Professional Review Interview

Your interview is undertaken by two professional reviewers.

You will be informed of the location of the interview; this is typically held virtually or at the place of work of one of the professional reviewers.

The interview is intended to be a positive exercise in which the onus is on you to demonstrate that you satisfy the requirements of IChemE.

The Competence and Commitment (C&C) report forms the basis of the interview.

The professional reviewers base their questions upon their assessment of your C&C report.

The word-count confines the C&C report to present only a summary of work carried out in professional practice. The interview allows you to give a wider context to your work. The discussion will use the topics presented in the C&C report and may cover each section; hence you should be prepared to discuss all the evidence set out in your report.

The professional reviewers are giving you the opportunity to demonstrate the depth and breadth of your experience and knowledge. On occasion, they may ask questions that range beyond what you have laid out in your C&C report to allow you to give more examples. This may include information you have included in the CV you submitted as part of the application.

The interview is structured yet flexible, to allow you to provide sufficient information for the professional reviewers to determine your suitability as a Chartered Chemical Engineer in relation to the following:

- that you satisfy the competence standards of IChemE this means that the professional reviewers will be seeking to verify that the contents of the C&C report are an accurate reflection and true account of your training and experience;
- that you have personal commitment to CPD;
- the extent and limits of your responsibility;
- the extent of professional judgement and decision-making in your work; and
- that you will uphold the reputation and interests of IChemE.

When describing evidence of competence you must consider the chemical engineering context of the work, the actions that you undertook and the results arising from your application of chemical engineering.

Please bear in mind that the professional reviewers are volunteers and often have busy professional lives, therefore it is not usually possible to change the timing for the interview. Where you or one of the professional reviewers encounters extenuating circumstances (eg bereavement etc) which you genuinely feel may prejudice or influence the outcome of the interview, you must inform IChemE staff immediately with a view to rescheduling the interview. If you proceed with the interview without informing us, you may not use such extenuating circumstances as grounds for appeal.

#### Preparation

In preparation for your interview, please re-read your C&C report. You may use your C&C report for reference during the interview, and we recommend that you bring along a copy. However, you must not access any other material (especially via the internet) during the interview unless agreed with the professional reviewers (eg to show a schematic or CPD plan), and nobody else may be present in the room.

The interview may open with the professional reviewers asking you for a summary of your career to date, so you should consider this in your preparation.

#### Identity check

The professional reviewers will begin the interview by welcoming you and will then perform the identity check against the photo ID submitted with the application.

#### Duration

The interview will last approximately one hour. You should keep your answers brief; where the professional reviewers feel that the topic has been covered, they may ask you to move on.

#### Closing the Professional Review Interview

At the end of the interview session, you will be asked if there are any items you want to mention which you feel are important to the application but were not covered by the professional reviewers.

You are requested not to ask the professional reviewers about the outcome of your application, as the process is not yet complete. The professional reviewers submit an interview report in confidence to IChemE's Registration Subcommittee Virtual Election Panel for their final decision. The decision can be either a recommendation to elect/transfer to Chartered Chemical Engineer, or a recommendation not to elect, in which case the professional reviewers provide detailed feedback on why you do not meet IChemE's competence standards. If your application is closed, you are welcome to reapply once you have addressed the feedback you received about your application, and this is treated as a new application.

#### **Assessment**

Immediately following the interview, the professional reviewers complete an assessment of the evidence provided by you during the interview, against each of the competence criteria. The Standards Panel and Virtual Election Panel expect the professional reviewers to ensure their assessment is evidence-based.

The professional reviewers are members of IChemE and bound by the Code of Professional Conduct. They must therefore conduct the assessment fairly and without bias, and observe confidentiality.

## Receiving the result

The final step in the process is for the Virtual Election Panel of the Registration Subcommittee to review and ratify the recommendation of the professional reviewers; they also consider input from the Standards Panel.

IChemE staff will promptly communicate the outcome to you by email following the meeting of the Virtual Election Panel. Where the decision is made not to elect and close your application, suitably detailed feedback will be provided to you to allow you to address the points and reapply at a later date with a new application.

If you have been successful, in due course you will receive a confirmation letter, certificate and a membership card by post. Where you have applied for CEng registration, you will also receive a Chartered Engineer certificate directly from the Engineering Council.

#### Appealing the decision

If you have been unsuccessful in your application for election or transfer to any grade of membership or registration, you may appeal, upon specific grounds. You must submit your appeal in writing using the IChemE Appeal Form, and make payment, within two months of your being informed of the decision. Should you make an appeal but do not receive confirmation of receipt by the two-month deadline, please inform IChemE immediately, as appeals made after this cannot be considered.

#### Grounds for appeal

If your application is unsuccessful, you may make an appeal if, in your opinion:

- there were procedural errors in the handling of the application; and/or
- the Professional Review Interview was not conducted fairly.

The Appeals Panel will not consider any additional evidence you provide via the appeal, regarding your suitability for election or transfer. It is therefore vital that you read and follow the appropriate guidance and include all evidence you wish to be considered, as part of your application.

#### Process for appeal

It is imperative that you clearly state the ground(s) for appeal and provide written evidence to demonstrate how, in your opinion, the application was not fairly assessed. One ground is sufficient to make an appeal.

On receipt of the appeal, it will be circulated to the members of the Appeals Panel. The panel members will also have access to all documentation relevant to the application in question including the Competence and Commitment (C&C) Report, the professional reviewer's C&C assessment report(s) and interview report and your referees' statements. Members of the Appeals Panel will consider the points raised in the appeal form and examine the evidence provided.

If necessary, the Chair may seek additional advice and input from non-Panel members with expertise appropriate to the matters being considered. The Appeals Panel will reach a conclusion as to the validity of the appeal and the Chair will prepare a written report. If the appeal is upheld, the report will also be passed to the Registration Subcommittee.

#### How do I submit an appeal?

Please contact appeals@icheme.org. A member of IChemE staff will provide you with more information and arrange the appeal fee payment. Where the appeal is upheld, the appeal fee is refunded. Where the appeal is not upheld, the fee is not refunded.

#### Timeline for appeal

You will be informed in writing of the decision of the Appeals Panel within two months of receipt by IChemE of both the completed appeals form and the appeal fee (whichever is received last).

#### Who considers the appeal?

Members of the Appeals Panel consider each appeal. The Appeals Panel is drawn from experienced professional reviewers with detailed knowledge and experience of the membership and qualification process. They do not participate in Standards Panel and Virtual Election Panel meetings and are therefore independent of the election process.

## **Appendices**

#### Appendix A – Reasonable adjustments

IChemE is committed to making reasonable adjustments to the Professional Review process to accommodate specific individual requirements related to disability or sensory impairment. This is in accordance with the Equality Act 2010.

If you believe you require reasonable adjustments to be made, please indicate this at the relevant point within the application process.

#### Appendix B - Plagiarism and Code of Conduct

Plagiarism and collusion are taken seriously by IChemE. Before submitting your application, you should read IChemE's Plagiarism Policy, which applies to existing members of all grades, and also to those in the process of applying to become members. It supports sections 3bx and 3bxv of the Code of Professional Conduct that require members to reject corrupt practices and to be mindful of the integrity expected of members of IChemE in their personal conduct.

#### Appendix C - Virtual interview

If your Professional Review Interview is to be held online, you will be advised of this early in your application process.

IChemE is very experienced in holding virtual interviews, and professional reviewers are trained in good practice and in leading interviews using Microsoft Teams.

#### Before the interview

Joining a virtual meeting is straightforward – either via a browser or the Microsoft Teams app. Where the app is installed, it will open automatically as soon as the link is clicked. If in doubt about your internet connection or technical compatibility, please refer to the following advice:

- hardware requirements;
- browser compatibility;
- bandwidth requirements.

These should be checked well in advance of the interview to allow time for fixing any issues identified and to arrange a test session prior to the day of the interview.

Test sessions may be requested in advance of the interview. If there is any concern around bandwidth or firewalls blocking access to the web meeting, it is strongly advised that a test session is arranged - please contact applications@icheme.org to arrange this.

Well in advance of the interview, you must consider the location you will use for the interview – it should be in a quiet room where there are no distractions.

IT issues during the interview may mean that the interview will run over its allotted time and so you should ensure that you allow for this eventually in your diary and the booking/use of any room where you will join the interview from.

#### Joining the virtual interview

Mobile phones should be switched off or put on silent and placed out of reach.

Close all applications on your computer that are not required. Use of search engines or other applications during the interview is not permitted.

A headset with inbuilt microphone should be used where possible, to minimise background noise.

Please log into the weblink at the allotted time, and not earlier, as the professional reviewers may be finalising their preparations.

#### During the interview:

The expectation is that all parties will maintain video as well as audio throughout the whole interview. It is recognised however that IT and bandwidth issues may sometimes cause issues for one or more participants, and so the following principles and guidance should be applied:

- prior to any formal beginning of the interview any shortcoming in audio or video from all participants should be identified, declared and discussed, with all parties agreeing to either proceed or to reschedule based on a collective assessment of the situation;
- it is absolutely essential that you can be seen on video throughout the interview. The professional reviewers will confirm your identity against the photo ID that you provided as part of the application process. The professional reviewers also need to confirm that nobody else is in the room with you and that you are not getting any assistance in any way;
- if it is not possible for you to be on video throughout the interview, then the interview will be aborted and rearranged. You should contact the membership staff in the appropriate IChemE office to rearrange the interview;
- if video/audio from any of the parties is lost during the interview, then the interview should be paused whilst the parties concerned attempt to re-establish video and/or audio. If you have technical difficulties, and where the interview is being held during working hours, please contact membership staff in the appropriate IChemE office;
- persistent loss of audio from any one of the parties will require the interview to be aborted and rearranged;
- loss of video from one professional reviewer is not a situation where the interview must be aborted and rearranged. However, in the event of a loss of video of both professional reviewers, even if their audio is unaffected, the interview should be paused and all parties should have a short discussion to decide when to reconvene (if expect only a short or minor delay of the loss of video) or to rearrange the interview for a later date;
- as the interviewee, you are not under any obligation to agree to continue the interview if you feel that the loss of video, by one of the professional reviewers, will be detrimental to your interview performance;
- at the end of the interview, it is important for all participants to have a brief review of the overall video/ audio quality throughout the interview. All participants should be able to agree that the interview was conducted without any interference or interruption that might have impeded the process adversely;
- all parties should speak slowly and clearly and actively listen. Allowances for minor time lapses caused by internet connections should be made, and it is important to indicate once a question/response has been completed so that the interview can progress efficiently.

#### After the interview

Once the interview is complete, please leave the Microsoft Teams meeting promptly to allow the Professional Reviewers to conduct their post interview discussion.

#### Appendix D - Conflicts of interest

IChemE's Code of Professional Conduct states that members must avoid real or perceived conflicts of interest and advise affected parties when such conflicts arise.

Where the professional reviewer indicates conflict of interest, IChemE membership staff will work to make alternative arrangements. You are also asked to inform staff immediately, upon receipt of the details of your professional reviewers if you are aware of any conflict of interest from your side.

#### Appendix E – Registrations

#### Chartered Engineer (CEng)

IChemE holds a licence with the Engineering Council which allows us to award the registrations of Engineering Technician (EngTech), Incorporated Engineer (IEng) and Chartered Engineer (CEng). When applying to become Chartered Chemical Engineer, you may also select to apply for the additional CEng registration. An additional fee is payable, but no additional assessment steps are required, as the standards and process for Chartered Chemical Engineer also satisfy the requirements for CEng registration. IChemE has interpreted the requirements of Engineering Council's UK SPEC standard, and ensures they are fully covered during the Professional Review. By applying to become CEng registered, you give permission for IChemE to provide the required details about you and your application to the Engineering Council, and your application may be audited by them to ensure IChemE's adherence to Engineering Council standards.

Chartered Chemical Engineers wishing to become registered as CEng at a later date should contact applications@icheme.org

#### Registered Professional Engineer of Queensland (RPEQ)

IChemE is an approved assessment entity for Registered Professional Engineer of Queensland (RPEQ) registration. In 2002 the state of Queensland, Australia, introduced the Professional Engineers Act making it a requirement that professional engineering services in Queensland and the design of buildings, plants, machinery or products for use in Queensland are carried out by engineers who hold the status of Registered Professional Engineer of Queensland (RPEQ).

The Act applies extraterritorially, meaning RPEQ registration is still required for any professional engineering services performed outside Queensland or overseas but destined for Queensland, Australia.

#### RPEQs can:

- demonstrate the required level of qualification and competence to practise as a chemical engineer in Queensland, Australia;
- provide critical engineering services to Queensland;
- be subject to a random audit of their professional development activities. Audited registrants are required to demonstrate an average of 150 hours of CPD over a three-year continuous period to maintain their registration.

IChemE's assessment standards for Chartered Chemical Engineer also satisfy the requirements for RPEQ. If you require RPEQ registration you should indicate this on your application, as IChemE must ensure that professional reviewers are RPEQ themselves.

If you are an existing Chartered Member or Fellow of IChemE and wish to become RPEQ, please contact us directly to discuss arrangements. If you think that you may require RPEQ registration in future, you are encouraged to apply for it at the same time as your Chartered Chemical Engineer application, as retrospective requests will require another assessment.

IChemE provides confirmation of election/transfer to Chartered Chemical Engineer, which you can then send to The Board of Professional Engineers of Queensland (BPEQ) to request the registration.

If you wish to be assessed for RPEQ registration but do not want to become a member of IChemE, you will still need to satisfy the requirements for Chartered Chemical Engineer and will have to go through the full application and assessment process, but will not be admitted to membership upon completion. Please contact applications@icheme.org to discuss this

#### Chartered Scientist (CSci) and Chartered Environmentalist (CEnv)

IChemE awards both Chartered Scientist and Chartered Environmentalist registrations via separate processes, to existing Chartered Chemical Engineers. Please contact applications@icheme.org to discuss this following your election.

#### Appendix F - Additional notes relating to ACTS applicants

If you are an applicant from an IChemE Accredited Company Training Scheme (ACTS), we strongly suggest that your current mentor reviews your C&C report to ensure it meets IChemE quality guidelines including Appendix B of the Mentoring Guidelines. Where there is a trained professional reviewer within your company, you should also seek a mock Professional Review (review of C&C report and mock interview).

Please note that this mock Professional Review is to assist you to prepare for your Stage 3 application, but does not replace the need to submit your application and progress through all stages of the Professional Review; a mock Professional Review is good practice but does not guarantee the outcome of the formal Stage 3 application.

If you are not on an ACTS scheme you are strongly encouraged to seek a mentor and arrange a mock Professional Review with them in advance of submitting your Stage 3 application. Many members seek mentors either through their employer, their local IChemE member group or special interest group. Where this is not possible, IChemE may be able to assist you in providing a mentor by contacting membergroups@icheme.org. IChemE is not able to arrange mock Professional Reviews.

#### Appendix G - Data protection

By submitting an application to IChemE, you are agreeing to IChemE taking the appropriate steps to process your application in accordance with IChemE's processes and regulator requirements.

You should not disclose confidential information that is contrary to your employer's confidentiality policy.

In a similar manner, professional reviewers understand that the reports that they submit may be reviewed by various member-led bodies within IChemE (Membership & Qualifications Committee, Registration Subcommittee and their panels) and that the Engineering Council and other appropriate licensing bodies may audit any aspect of an application that relates to the appropriate registration.

For more information please visit www.icheme.org/legal

#### Appendix H – Glossary of terms

Term	Definition
Accredited Company Training Scheme (ACTS)	Graduate training schemes accredited by IChemE. Visit www.icheme.org/acts for further information.
Appeals Panel	Members of the Appeals Panel consider each appeal received. The Appeals Panel is drawn from experienced professional reviewers with detailed knowledge and experience of the membership and qualification process.
Chartered Chemical Engineer	Professional title available to individuals who meet the required standard.
Chartered Engineer (CEng)	Professional registration of the Engineering Council. See www.engc.org.uk/ceng for further details.
Chartered Environmentalist (CEnv)	Professional registration of the Society of the Environment. See socenv.org.uk/page/CEnv for further details.
Competence and Commitment (C&C) Report	The report you must submit with your application to provide evidence of your competence and commitment.

Term	Definition
Chartered Scientist (CSci)	Professional registration of the Science Council. See www.sciencecouncil.org/csci for further details.
Code of Professional Conduct	IChemE's Code of Professional Conduct is designed to cover both the professional competence of members of the Institution when practising their engineering expertise anywhere in the world, and their professional relationships with the Institution, its members and its staff, and their professional colleagues. See www.icheme.org/codeofconduct
Continuing Professional Development (CPD)	Continuing Professional Development (CPD) is the systematic acquisition of knowledge and skills, and the development of personal qualities, to maintain and enhance professional competence. This is evidenced via Section E of the C&C report.  There is an ongoing requirement for Chartered Chemical Engineers to
	continue CPD activity whilst they remain professionally active.
Individual Case Procedure (ICP)	See Stage 1 – the process to assess the education base of applicants that do not have a full set of accredited qualifications.
Initial Professional Development (IPD)	See Stage 2 - Initial Professional Development is where someone learns to apply their knowledge and understanding, develop the required competencies, and attain the experience to help them become professionally qualified. It can be covered via an ACTS scheme or it can be self managed.
Member groups	Regional communities of IChemE members. See www.icheme.org/member-groups for further details.
Membership & Qualifications Committee	The Membership & Qualifications Committee is responsible to the Board of Trustees for the role of the Institution as a qualifying body. It oversees the work of the Registration Subcommittee.
Mentor	It's beneficial to gain perspective and experience from a chemical engineer who has already gone through the Chartered application process. See www.icheme.org/mentoring for more information.
mycareerpath	An online tool designed by the Engineering Council to help you plan and record your CPD. See www.icheme.org/mycareerpath for more information.
Professional Review	The final step in the journey to professional registration; it comprises a review of documentary evidence and a professional review interview. The entire process and requirements are the subject of this guidance document.
Professional Review Interview	The interview element of the Professional Review.
Professional reviewer	Peer reviewers, who are members of IChemE, who will carry out the assessment of the application (documentary evidence and interview). They work in pairs and will hold at least the level of membership/registration that is being assessed.

Term	Definition
Referee	Two referees are needed to provide a reference in support of an application to Chartered Member in accordance with By-law 33.
Registered Professional Engineer of Queensland (RPEQ)	Registration required for all engineers carrying out professional engineering services in, or for, Queensland, Australia.
Registration Subcommittee	This panel, comprised of members of IChemE, operate all IChemE membership election processes, including assessments relating to professional qualification for all grades of professionally qualified membership. During the meeting of the subcommittee's Virtual Election Panel, they consider the recommendation and evidence provided by the professional reviewers and make the final decision on whether to elect applicants.
Special interest group	Communities of IChemE members from around the world sharing common interests and expertise. See www.icheme.org/sigs for further details.
Stage 1	The first step in the journey to professional registration. It is achieved either via the necessary accredited qualifications or the successful completion of the Individual Case Procedure (ICP).
Stage 2	The second step in the journey to professional registration. It is satisfied either via completion of an ACTS or IPD Submission.
Stage 3	The Professional Review; the final step in the journey to professional registration.
Standards Panel	This panel comprises members of IChemE, and its mission is to ensure that the institution applies and maintains demonstrably consistent standards in admitting, transferring and reinstating applicants.
Verification	As part of the application and assessment process, the experience cited in your C&C report must be verified as a true account by another individual(s) in an appropriate position to you.
Virtual Election Panel	The Virtual Election Panel is a function of the Registration Subcommittee. During their meetings, members consider the recommendation and evidence provided by the professional reviewers and make the final decision on whether to elect applicants.

### Contact us for further information

#### UK

+44 (0)1788 578214

#### Australia

+61 (0)3 9642 4494

✓ austmembers@icheme.org

#### Malaysia

**\** +603 2283 1381

malaysianmembers@icheme.org

#### New Zealand

**4** +64 (0)4 473 4398

✓ nzmembers@icheme.org



### www.icheme.org

Incorporated by Royal Charter 1957. The Institution of Chemical Engineers (trading as IChemE) is a registered charity in England and Wales (214379) and Scotland (SC039661). The Institution also has associated entities in Australia, Malaysia, and New Zealand.