

Registration: South African Council for Professional Engineers

SACPE has asked the *Journal* to bring the following points to the notice of members who are about to register with SACPE.

When to Apply

There is no set time to apply for registration. Engineers should apply when they believe that their training has met all the requirements of Policy Statement No. 1/3.

The legal minimum period of training is three years after graduation. Applications are evaluated on the basis of the training received in terms of the Policy Statement. The Statement is wide and therefore allows scope for interpretation, but in general it is expected that the training will have involved the applicant in the application of engineering mathematics, physical and applied sciences, properties of material, and the fundamental principles of engineering design. The training must be broad in scope and of such a nature as to have developed and matured the applicant's knowledge and judgement. The application should clearly indicate the degree of responsibility in each function.

Where an acceptable training programme has been followed, it is preferable for the applicant to mention this, even though he has not covered all the aspects of the programme. Programmes are used as a guide and variations are possible, and the programmes probably cover a wider area than is essential to meet the minimum requirements.

Pitfalls

Remember that it is the applicants' training that must be evaluated, and this requires the avoidance in the application of vague generalities such as 'My duties were to design plant including its economic evaluation' or 'I was engaged in . . . or I performed . . . or I worked on . . .' etc.

To evaluate such statements is difficult, and applicants should attempt to be clear on:

- (a) the specific duty,
- (b) the plant – if plant design is involved,
- (c) the principles of design,
- (d) the basis of the economic evaluation,
- (e) the other people with whom or under whom the job was done.

Ideally, the applicant should have kept a diary of rating throughout the period and then prepared a draft report clearly indicating his personal involvement or contribution in each phase of his training.

Verbosity is undesirable. Clear concise sentences are required. The name of the professional engineer under whom the applicant worked or the mentor who guided him/her should be mentioned.

Requirements

An example of what is required can perhaps best illustrate the point.

Period: January 1977 to March 1977 – 35 weeks

Employer: XYZ *Supervisor:* A.A. Smith, Pr. Eng.

Project: Factory design and layout, ABC company
Description of Project: The company had outgrown its present premises and had purchased a new site for which a new factory was to be designed and laid out.

Duties: I was part of a team of three whose task was to design the structure including the travelling cranes inside the building.

Degree of responsibility: I did the calculations, which were checked by the Professional Engineer in charge of the team. It was a portal structure, and had a span of 20 m with a headroom of 10. I assisted in evaluating the tenders received and supervised the erection.

In this example, job title is not mentioned because a job title is not necessarily a good way of showing an applicant's level of engineering responsibility or his/her position in the engineering team. In all cases SACPE must be given the information on which to base its assessment of an applicant's training. The applicant is the only one who can give this information and his/her referees can corroborate this and give an opinion on how well he/she carried out the tasks allotted to him/her. If necessary, the applicant should discuss the report with his/her mentor to see if what he/she wrote in the application is a true and realistic description of the training received. The difference between training and experience should be noted. The former involves at least two individuals, viz the person being trained and the one directing the training. Experience implies learning by mistakes, doing the same thing over and over again and getting better at doing the same thing. This method may well be expensive and time-consuming by comparison with proper training.

Finally, if the applicant requires assistance, he/she can obtain it from his institution, which has agreed to give any information and advice that its applicant members may need.