

The engineer's public duty

The role of the institutions

This is the last of three articles dealing with different aspects of engineering ethics. The first examined the general scope of the subject and current issues concerning direct action on preventable disasters. The second article considered specific areas in which the engineer may be called on to make an ethical judgment. This article discusses the role of the engineering institutions, specifically in relation to the public interest.

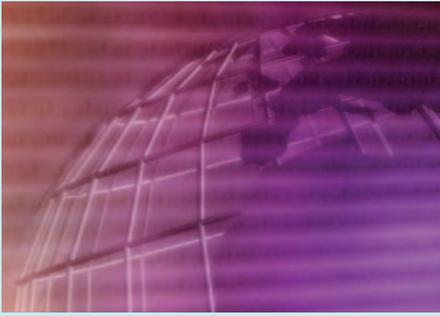
Public interest and the professions

The essence of professional conduct and standards is that they embody more than the narrow pursuit of the interests of the client or the professional himself. The notion of professional standards indicates the existence of wider obligations, one aspect of which is the recognition of the impact which an activity has on the public. On

examination, all professions that justify such a description share, as one of their aims, the maintenance of the public interest, the nature of that interest depending on the activities in question. Thus, the public interest element in the medical profession is obvious enough, although now recognised as involving many ethical conflicts, such as the allocation of limited medical resources.¹ The legal professions, as an important part of their function, have to safeguard the public interest in the proper administration of justice, expressed through long-standing professional rules. Some of these are currently under public debate, including the question of rights of audience in the higher Courts. Also figuring prominently in recent months are the financial services professions, whose activities can now be seen to encompass a

major public interest element in the maintenance of confidence in the free market system. In each of these cases, and others too, it is necessary to identify the nature and extent of the public interest and the corresponding public duty which can be said to fall on the profession. The engineering profession is, therefore, in no special position except, perhaps, in having so far avoided public debate on its ethical codes, at least in the UK.

The conventional starting point for a debate on public interest issues would be to examine the relevant rules of professional conduct and the procedures for maintenance of standards for the profession. These are discussed below in relation to engineering. Yet these rules and procedures cannot be regarded as definitive of the public interest. There exist overriding considerations which



will be determined by the nature of the professional activity in question and from which the rules currently in force must derive their relevance and authority. The Enron scandal makes this point only too clearly, when the conventional accountancy and audit rules were seen to be inadequate and largely irrelevant to the threatened global crisis of confidence in the financial markets. The task of the professional bodies must be to identify and to reflect in their rules of conduct and procedures what the public interest demands of that profession. If the professional bodies fall behind in this role, they risk becoming irrelevant in that the public will itself become the driving force, expressed through Court actions or by government intervention in the name of the public.

Engineering codes of conduct

At the present time each of the UK engineering institutions maintains its own almost entirely autonomous rules and procedures for maintaining professional and ethical standards. Following recent mergers, there remain some 37 UK engineering institutions. The codes of conduct and the disciplinary machinery which accompany them differ in detail between the institutions but, unsurprisingly, have many features in common. The codes cover a range of topics dealing with matters of competence, integrity and generally upholding the dignity and standing of the profession. Of particular interest, for the purpose of this article, are rules dealing with public interest issues.

The following are examples taken from the current engineering codes:

- 'A member shall at all times so order his conduct as to safeguard the public interest, particularly in matters of Health and Safety and the Environment ...'¹²
- 'A member shall ... at all times take all reasonable care to ensure that their work and the products of their work constitute no avoidable danger of death or injury or ill-health to any person ...'¹³
- 'Members of the Institution in their responsibility to the profession shall have full regard to the public interest ...'¹⁴
- 'A member shall have full regard for the public interest, particularly in relation to the environment and to matters of Health and Safety ...'¹⁵
- 'A member shall at all times so order his conduct as to ... safeguard the public interest in matters of safety and health and otherwise ...'¹⁶

To the above list may be added the following, which are taken from Commonwealth Engineering Codes:

- 'Members shall place their responsibility for the welfare, health and safety of the community before their responsibility to sectional or private interests or to other members.'¹⁷
- 'A practitioner shall ... regard the practitioner's duty to public welfare as paramount.'¹⁸

It may be noted that the various codes differ in the language chosen to express the requirement of each institution. Whether this is intended to be

significant is debatable. It would normally be presumed that different language is intended to convey a different meaning; but equally it is difficult to understand how the public interest should be protected in a materially different manner by, for example, a civil engineer as compared with a structural engineer, or a mechanical engineer as compared with an electrical engineer, or an engineer working in the UK as opposed to one working in Canada or Australia.

In both Canada and Australia there is but one recognised profession of 'engineering' and in Australia one unified institution. In Canada, however, the profession operates on a provincial basis, with each province having its own legislation and engineering institute. Differences between provincial statutes and provincial institutional rules have recently led to a recommendation by the Canadian Academy of Engineering that uniform legislation be established for the whole Canadian engineering profession, in the public interest.⁹ The same issue was addressed, against some opposition, by the UK Engineering Council as one of its last acts before re-organisation. Attempts to produce a unified code of conduct were unsuccessful, but a document was drawn up setting out guidelines on issues to be covered in institutional codes.¹⁰

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These require that individual UK institutional codes should (*inter alia*) create an obligation to act in the public interest, specifically in relation to the requirement to prevent avoidable danger to health or safety and to prevent avoidable adverse impact on the environment. Regrettably, the guidelines do not appear to have brought the individual institutions any closer and differently expressed rules remain in seeking to define what is perceived to be the public interest. The need for uniformity is a matter of substance as well as form. As disciplinary procedures become more transparent, the public will become justifiably confused by the variety of different expressions emanating from such closely related bodies. Worse, it is reported that practitioners who belong to more than one UK institution have found that the same set of facts may be interpreted differently under differently expressed rules to the extent of one institution regarding an incident as worthy of disciplinary action and another not.¹¹ Such a result is conducive neither to public respect nor to the confidence and support of Engineers. The likelihood of Court action in such circumstances can only be increased. The UK institutions have little experience of combined or co-ordinated action and the problems should not be underestimated. It would be regrettable if the need for uniform regulations were to be dictated by the Courts when the remedy plainly lies with the institutions themselves. There is, of course, no reason why the clear need to achieve uniformity in the field of professional conduct and ethics should be affected by the wider merger debate, and every reason to encourage combined action by the presently separated institutions.

Enforcement procedures

The means by which the codes are enforced generally consists of a two-or three-tier procedure involving an initial stage, usually involving an investigating

panel, whose function is to determine whether a complaint raises a case to answer. This is followed by a disciplinary panel or tribunal which is set up to hear and determine the complaint. There may then be some form of appeal, the procedure for which varies between the institutions. The composition of the boards, panels or tribunals has, in the past, consisted exclusively of senior members of the relevant institution, with little if any lay participation. The hearings have generally been conducted in private, and publication of decisions has been limited to the decision itself, e.g. as to whether the disciplinary charge is upheld and, if so, the measures ordered against the member. Lack of public access has tended to support and sustain differences between the institutions. As will be seen, changes are now being forced on the institutions which will add further weight to the logic of unified procedures as well as unified rules.

Changes are occurring to the procedures used in all institutions and similar bodies, first as a result of the recent development of judicial review (i.e. challenge before the Courts of actions and decisions of public bodies and tribunals) as a legal remedy; and secondly, as a result of human rights

legislation, particularly the far-reaching Act of 1998. The latter now imports into English law, although subject to qualification, the entitlement to 'a fair and public hearing ... by an independent and impartial Tribunal'.¹² A discussion on the application of the Human Rights Act to institutional disciplinary proceedings would be quite beyond the scope of this article. It may be noted, however, that, while there are many qualifications to the application of Article 6, the result has been a general perception and acceptance of the need for greater accountability and transparency in the use of powers which affect rights which fall within the scope of human rights legislation. No public body can now remain aloof from these developments. The effect of these changes is considered further below.

A topic which may be of relevance to enforcement is the registration or licensing of engineers. The UK institutions, as well as the Institution of Engineers of Australia, share a common legal basis in being established by Royal Charter, by which the institution is empowered to make and enforce by-laws and rules. Canada (in common with New Zealand and other countries) stands apart in that the engineering professional is regulated by statute,



‘... in the field of engineering it has been regarded as necessary to require registration only in respect of particular activities ...’

including the requirement for practitioners to be licensed. A distinction may well exist between the status and public standing of an ethical code in a jurisdiction which provides for licensing of practitioners as compared with one that does not. In the latter case, the sanction of striking off or removal from the register may have less force when the person in question can continue to work with impunity. Conversely, wherever licensing applies, there will also be found a lively debate (particularly in the USA) as to how far it is permissible to employ non-licensed personnel, adding a new dimension to the ethical debate.

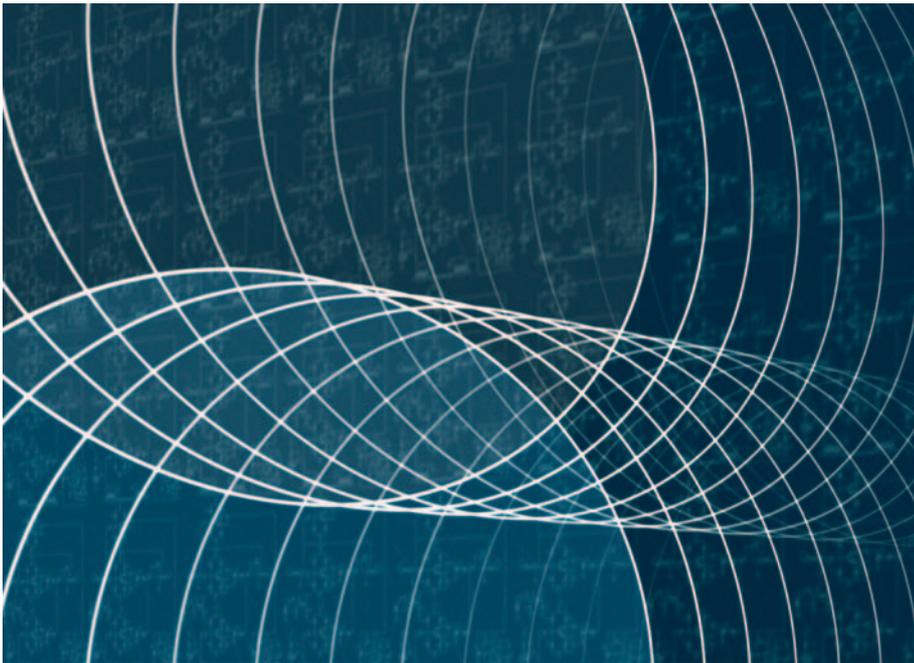
Whatever the practical effects of registration and licensing, it appears that the Canadian institutions are in the vanguard of ethical developments in engineering, but with much activity also being found in the National Institution of Australia. In the UK it is notable that architects have steadfastly clung to their statutory registration,¹³ while in the field of engineering it has been regarded as necessary to require registration only in respect of particular activities, such as reservoir engineering.¹⁴ Registered engineers in the UK are subject only to those ethical codes issued by their qualifying institutions. Licensed architects, however, are subject to new statutory provisions governing the Architects Registration Board and its Professional Conduct Committee.¹⁵ In particular, the Board itself and the PCC are now required to have a majority of members who are not registered architects (by contrast, the ICE Disciplinary Panel has three lay members out of 15). Where a disciplinary order is made, the PCC is

required to publish ‘a description of the conduct, incompetence or offence concerned’.¹⁶ In addition, the Act provides for a right of appeal to the High Court from a disciplinary order.¹⁷ Surprisingly, neither the Architects Act nor the Code of Conduct and Practice contain any reference to the public interest. These new statutory measures may be assumed to be ‘human rights’ compliant and may therefore give some indication of the changes which may, in time, be required within the non-statutory institutions.

Actions required by engineers

It is one thing to require engineers to safeguard the public interest, but quite another to lay down actions required in particular circumstances. The difficulties of deciding on appropriate action in the face of a preventable disaster have already been discussed in these articles. Even more difficult is to define how an engineer should act in the public interest in circumstances short of impending disaster. In addition to problems of interpretation, none of the codes descends to any detail as to the steps which are to be expected of an engineer when complying with his duty to the public. It is clear that such a duty is not to be aligned with legal duties.¹⁸ No direct guidance can be expected from the Courts, since their principal function will be to review the fairness of disciplinary procedures rather than the detailed reasons for a decision. The question of how the ethical duties of an engineer are to be identified in relation to particular facts was discussed in the second article. The point, which has

now been made repeatedly, is that the relevant standards and the conduct expected from engineers must be determined by the profession itself through its ethical conduct machinery. Therein lies the real ethical challenge which faces the engineering institutions. The need for confidentiality has, in the past, prevented decisions being made available as a source of guidance: generally only the decision itself is published and not the reasons. But the progressive impact of Human Rights Law, discussed above, and the recognition of the need for transparency should result in such material becoming more accessible. In some jurisdictions disciplinary cases are already being published in truncated form. For example, the Association of Professional Engineers of Ontario publishes accounts of disciplinary proceedings in its *Gazette*, where a summary of the arguments and evidence is given, together with the decision and reasons of the tribunal. With regard to the UK institutions, it may be noted that the Construction Industry Council has recently established an independent appeals tribunal available to its member bodies. This is intended to provide for a remedy compliant with the Human Rights Act where a person subject to disciplinary proceedings wishes to put the case before an independent tribunal, i.e. one not consisting of members of the relevant institution. The CIC appeals procedure provides for the tribunal to issue a reasoned judgment and to provide a copy to the institution for publication. Thus, even if the institutions themselves do not publish their decisions, the appeals tribunal will, in time, become a source of guidance. The institutions may take note that, in common with other appeals tribunals, the decision appealed from and its reasons will become apparent from the appeal decision. This should encourage the institutions themselves to publish their disciplinary decisions, at least in the interests of achieving uniformity as well as clarifying the relevant rules.



Actions required by institutions

While the institutions all operate professional conduct procedures dealing with cases of incompetence or other 'misconduct' meriting disciplinary action, there is little indication of any steps currently being taken to enforce the duty imposed by the codes of conduct to uphold the public interest. The reason for this may be that all the disciplinary procedures operate, seemingly exclusively, on complaints made by people who consider themselves to have suffered as individuals from the actions of an Engineer. This is inherently unlikely to give rise to any serious complaint of failing to safeguard the public interest. Yet it is not difficult to identify many circumstances in which the actions of engineers do impinge seriously on the interests of the public, as opposed to individuals. Indeed the nature of the public interest is that it will often be opposed to the interests of the immediate client. Thus, if the institutions are to maintain their role as guardian of the public interest, it may be that the institutions themselves must take on the role of enforcement, without relying on individual members of the public to initiate a complaint.

It has already been suggested that the institutions cannot regard their function in relation to the public interest as secondary, and as limited to giving advice and encouragement. Their role must encompass monitoring and, where a need is apparent, enforcement. This may require the institutions themselves to take disciplinary action against their own members who are perceived to be acting, or failing to act, in a manner which is contrary to the public interest. The institutions should not wait for the Courts to define their role for them.¹⁹ As a first step the institutions should review and seek to define what they intend by requiring members to uphold the public interest. The debate should include all the institutions, which should then seek to decide, collectively, what steps they are prepared to take to ensure that the public interest is indeed upheld.

Conclusions

It is tempting to conclude that, beyond a few high-profile cases where engineers have stepped out of line to warn of impending disasters, the engineering institutions have been enabled to take a conveniently passive role in relation to the public interest duty

owed by their members. To do more, without a clear and pressing need, will be troublesome and will entail further bureaucracy and expense. Yet such an attitude does not reflect the views of individual engineers who have consistently shown concern over the public interest. It has also been convenient to conduct the 'ethical' debate at such a high philosophical level as to avoid any contact with the reality of engineering practice. Thus, engineers have been content to join in the debate about nuclear power versus renewable energy sources. But as pointed out in the second article, this has little to do with professional ethics, where the engineer's duty must be related to practical considerations.

This paper has sought to address some of the difficulties faced by the UK institutions and others as well in establishing a coherent duty on their members to act in the public interest. No such duty can be supposed to exist without enforcement and the existence of appropriate sanctions. As justice must be seen to be done, so must the engineer's duty to the public be seen to be fulfilled. The UK engineering institutions, largely as a consequence of their fragmented nature, have fallen behind other UK professional bodies and engineering institutions abroad in pursuing these objectives. This offers some advantage in being able to learn from experience elsewhere. But the complexity of the UK institutional framework is not to be underestimated. Successive attempts to achieve unified action through an umbrella organisation, such as the Engineering Council, have brought their own problems, rather than solving the existing ones. The problem of unified action remains an immense challenge.

Among the professional bodies from whom experience may be usefully gained is the Chartered Institute of Arbitrators. The Institute has found itself dealing with numbers of complaints, unsurprisingly given that every arbitration award leaves at least one

party dissatisfied. It has been publicly recognised that parties may seek redress through the Institute since it 'has an obligation to the public to ensure that its members are competent and capable' and that the Institute, if it is to promote arbitration 'has a concomitant duty to investigate allegations of members' inappropriate conduct in a fair and independent manner'.²⁰ The downside is that the Institute has recently incurred substantial legal costs in pursuing disciplinary proceedings, said to be such as to require a substantial increase in members' subscriptions. It is reported that the Australian Institute of Engineers similarly sees significant numbers of cases involving legal representation by Senior or Queens Counsel, at considerable expense to the institution where such costs are not recoverable. It would be unfortunate indeed if the same fate were to befall the engineering institutions in taking steps to enforce duties to uphold the public interest.

Fortunately, the UK engineering institutions have established excellent working relations with the legal professions. The Institution of Civil Engineers, for example, has a number of barristers and solicitors who devote time voluntarily to their legal matters.²¹ While such support is to be welcomed, it should be borne in mind that the legal professions have received great

financial benefit from their contacts with engineering- and construction-related activities, with little other investment or commitment. The legal professions have much to gain from continued and even closer association with the engineering professions. If disciplinary proceedings with legal representations are to become more widespread, particularly in public interest matters, the institutions should not hesitate to insist that lawyers who provide their services should do so *pro bono publico*. It can be confidently predicted that there will be no shortage of barristers and solicitors willing to offer their services on this basis, and that those who do so will have other opportunities for the legitimate recovery of fees in Court or other proceedings which are appropriately funded by commercial parties or their insurers.

The purpose of these papers, however, has not been to support or encourage disputes or tribunal proceedings, but to draw attention to existing rules of the engineering profession which have received insufficient attention. It is appropriate to conclude on a positive note by suggesting means by which greater attention to the public interest may be achieved. Among the many changes currently working through the engineering profession are two developments which allow the

possibility of focusing more attention on the public interest. First, the need, in common with most other professions, to set up and operate procedures for revalidation of professional competence seems to offer scope for introducing particular requirements regarding the public interest. Revalidation is based on requiring the professional to demonstrate compliance with benchmark standards of practice, including the provision of evidence of experience and professional development. The introduction into such procedures of a 'public interest module' offers a positive opportunity to engage engineers in the identification and implementation of a wider public role.²² Secondly, despite the general absence of registration in the UK engineering profession, there is a growing demand for engineers to be registered in their particular areas of expertise as SQEP, i.e. 'Suitably Qualified and Experienced Personnel', with appropriate evidence of such registration being provided. There is a current debate within the institutions as to the appropriate means of satisfying this demand.²³ These requirements offer a further opportunity to introduce public interest requirements and to ensure that those who are given such added imprimatur satisfy the requirements of their professional bodies at all levels. ■



Notes

- 1 See generally Mason and McCall Smith (1999) *Law and Medical Ethics*, 5th ed., Butterworths.
- 2 Institution of Mechanical Engineers, Rule 33.6.
- 3 Institution of Electrical Engineers, Rules 1 and 2.
- 4 Institution of Structural Engineers, Rules of Conduct, Rule 1.
- 5 Institution of Civil Engineers, Rules of Professional Conduct, Rule 3.
- 6 Royal Aeronautical Society, Bye-laws sect 4(A).
- 7 Code of Ethics of the Institution of Engineers, Australia.
- 8 Professional Engineers Ontario Code of Ethics.
- 9 'Protecting the public and the environment': report of the Canadian Academy of Engineering, February 2002: www.acad-eng-gen.ca
- 10 Engineering Council Senate Paper No.ECS(P) 38/00.
- 11 The relevant bodies being the Institution of Civil Engineers and the Institution of Structural Engineers.
- 12 European Convention on Human Rights, Article 6: Right to a Fair Trial.
- 13 Architects Act 1997, Consolidating and Amending Acts of 1931 and 1938.
- 14 Reservoirs Act 1975, Re-enacting an Amending the Act of 1930.
- 15 Architects Act Sched 1 Part II.
- 16 Ibid sect 15(4).
- 17 Ibid sect 22(c).
- 18 See 'Engineering Ethics: Do Engineers owe duties to the public?' (2002) Lloyd's Register Lecture, Royal Academy of Engineering.
- 19 As to the possibility of legal action against an institution by individuals see *Marc Rich & Co. v Bishop Rock Marine Co. Ltd.* [1996] AC 211 (negligence action against a ship classification society) and *Welton v North Cornwall DC* [1997] 1 WLR 570 (action against local authority); and see also *R v Takeover & Mergers Panel ex parte Datafin* [1987] QB 815 (application for judicial review).
- 20 Ethical Codes of Conduct for Arbitrators and disciplinary proceedings of the Chartered Institute of Arbitrators, Tamara Oyre: *Arbitration Vol. 68 p.90* (2002).
- 21 One of the recent vice presidents of the Institution of Electrical Engineers was also a practising QC.
- 22 See UK Inter-Professional Group: Guide to the Revalidation of Professional Competence.
- 23 The Institution of Civil Engineers is currently setting up a working group to advise the Council.

John Uff worked in civil and geotechnical engineering, retraining to specialise in construction and engineering law. He has been involved in many international disputes, covering many parts of the world, most recently in Australia. In 1987 he became the founding Director of the Centre of Construction Law at Kings College, London, where he has held the Nash Chair of Engineering Law since 1992. The Centre teaches a Masters course to engineers and lawyers. Since 1996 he has chaired a number of Public Inquiries into the water industry and railways.



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Venue: **7 Carlton House Terrace, London SW1**

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