

ETHICAL ENGINEERING

COULD THE VW SCANDAL HAPPEN AT A BRITISH COMPANY, AND WHAT WOULD BE THE CONSEQUENCES?

The VW scandal has brought our profession into disrepute says **Malcolm Carr-West CEng** and urges IAGrE members to keep the Institution's Code of Conduct constantly in mind

The recent news regarding Volkswagen diesel engines must be of more than passing interest to agricultural engineers. Most of us would consider that the diesel engine is the prime power unit for agricultural engineering. So it should obviously concern us all, that one major manufacturer has done much to damage not only its own reputation but also the reputation of diesel engines.

Once we have overcome the initial and inevitable *schadenfreude*, (It would be easy to shrug our shoulders and think, German engineering is not as good as we have always thought it to be) we need to consider our own position. I have spoken to a number of people whose distrust of engineering in particular and science in general has been strengthened by the VW scandal. To put it succinctly, the VW scandal has bought our profession into disrepute.

The exact nature of what happened at VW is still far from clear and it is not possible to state with any certainty if VW's sufferings were caused by a lone engineer acting on their own initiative or by a team within



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the company trying to fulfil their obligations to the company. Indeed, it is too early yet to be clear if anyone at VW was involved in setting up the 'cheat device'. It should go without saying that no one would approve of breaking the law or of technical fixes that cover up law breaking. How then should we react to the VW scandal? If this had happened in a British based company what should be our reaction?

STANDARDS

We can start by looking at the ethical standards we in Britain apply as engineers.

As professional engineers we commit ourselves to following a code of ethics. In principle this calls for us to be honest and truthful. As members of the IAGrE we have signed up to the Institution's Code of Conduct. This document can be viewed on our web site at <http://www.iagre.org/codcon>. If, in addition, we are registered with Engineering Council, then we are also required to obey the Engineering Council's Statement of Ethical Principles.

Firstly, it is important to bear in mind that our Institution's Code of Conduct is the minimum standard that is expected of us. It also makes it clear that the interest of the public is always paramount. In effect any work that we carry out as engineers should be in the interest of the public regardless of the country in which we are operating.

Similarly, any system that we are responsible for, should operate in the interest of the public in the country in which the system is working. No doubt it could be argued that in some cases the law and public interest



are not the same. However, it is difficult to see how flouting emissions regulations could be in the public interest. There are then a number of clauses within the Code of Conduct that lay out specific requirements that members need to follow. Clause 1 reads as follows.

Members shall at all times and in all respect:

- (a) take all reasonable care to avoid creating any danger of death, injury or ill-health to any person or of damage to property by any act or omission whilst carrying out their work or as a result or consequence of their work, save to the extent that the creation of such danger is lawfully authorised;*
- (b) take all reasonable care to protect the working and living environments of themselves and others and to ensure the efficient use of materials and resources;*
- (c) conduct themselves so as to safeguard the public interest in matters of safety and health and in a manner consistent with the dignity and reputation of the profession as relevant to the Institution; and*
- (d) notwithstanding the provisions of any of the other Rules or Codes of Professional Practice, comply with all laws and regulations applicable to their professional work.*

CHEAT DEVICES

It is quite clear that anyone working on a 'cheat device' designed to ensure compliance only under test conditions failed to observe (a). By allowing cars on to the road that did not meet emissions limits they were clearly not showing a concern about the health of those breathing in emissions. While the emissions from engines are clearly injurious to a person's health, as

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engineers we may not be the expert as to the acceptable limits. It is clear that whoever was responsible for the 'cheat device' also ignored section (d) as they clearly acted in such a way as to circumvent the law.

If, as an engineer, we are registered with Engineering Council, we need also to comply with the Engineering Council's Statement of Ethical Principles. This code of ethics does not excuse us from not applying our Code of Conduct rather it supplements it.

It is quite clear that those working on the 'cheat device' failed to comply with the clause which says . . . *professional engineers and technicians should avoid deceptive acts, take steps to prevent corrupt practice or professional misconduct, and declare conflicts of interest.* They clearly designed a system that would deceive those lawfully charged with testing the vehicles.

To return to our own Code of Conduct (para 3.3) it says *Members shall not be connected with or carry out any occupation or business in any way which would reflect adversely upon their professional status or the dignity and reputation of the profession.*

There can be very little argument that the 'cheat device' has bought engineering into disrepute. It is abundantly clear that fitting a 'cheat device' contravenes the Code of Conduct of both our Institution and that of the Engineering Council.

It is also obvious that there was the intention to disguise the normal running emissions levels from the inspectors. This is a polite way of saying that they had in fact set out to break the law.

CONSEQUENCES

So it would appear that if any person or persons were responsible for the 'cheat device' and were members of our institution, then, based on our Code of Conduct, there would be a compelling argument for bringing a disciplinary action against them.

Whilst it is impossible to prejudge such a hearing, the likely result would be their being removed from the Engineering Register and so stop them being a Chartered Engineer, an Incorporated Engineer or an Engineering Technician.

So in Britain, there is a clear process that would remove anyone known to have been involved with designing and installing a 'cheat device' from the profession. However, before this can happen, someone needs to identify that they are doing this. How would this come about? Well in the case of VW it has apparently been as a result of rigorous testing in California, although if individuals were involved their names may never be known.



WHISTLEBLOWING

This is covered in the whistleblowing guidance that is currently being developed by Engineering Institutions. As yet we do not have our own guidance in place, so we need to fall back on the Engineering Council's guidance.

This guidance uses the UK Whistleblowing Commission definition of whistleblowing as:

'the raising of a concern, either within the workplace or externally, about a danger, risk, malpractice or wrongdoing which affects others'.

So if there were people in VW that were aware of, but not directly involved in the 'cheat device' it is clear that under this code they would have been obliged to raise their concerns with someone.

Whistleblowing law varies from country to country but many industrial nations have some form of whistleblowing legislation. In the UK the law is on the whistleblowers side.

So to come back to the VW scandal, could it have happened in the UK? The answer is probably yes. Are there measures in place to regulate our profession from such activity? Again, definitely YES. So whilst we cannot rest on our laurels we can at least be aware that it is against the

Code of Conduct in our institution and almost certainly in all other engineering institutions.

EUROPEAN CODE

It is worth noting that Germany has similar practices in the regulation of engineers to the UK, although in Germany only those with the correct qualifications can call themselves engineers. There is an overarching engineering organisation for engineering in Germany, the Association of Engineers or VDI. In March 2002 they published Fundamentals of Engineering Ethics which essentially commits their engineers to the same obligations as Engineering Council UK expects of British registrants.

Finally, it should be noted that the European Federation of National Engineering Associations (FEANI) which represents engineering across Europe and beyond has reviewed codes of ethics for engineers across their membership. FEANI's Position Paper on Code of Conduct entitled Ethics and Conduct of Professional Engineers, received approval by FEANI's General Assembly on 29 September 2006.

So we can conclude that both nationally and internationally there are clear codes of conduct to which we are expected to follow. That this has not always done may be unfortunate, and might imply that we need to do more to enforce these codes, but we must remember that they are not voluntary, they are codes that we accept when we sign up to membership.

We need to tell anyone who will listen that our Code of Conduct would not condone this type of activity.

References:

IAGRE: www.iagre.org/codcon

Engineering Council: www.engc.org.uk/professional-ethics

FEANI: www.feani.org

