

Whistleblowing: what should fire engineers do?

Board member Mostyn Bullock BEng CEng FIFireE and International President Elect Martin Shipp BSc (Physics) CEng FIFireE CPhys MInstP report on guidance on whistleblowing and advise what the Institution and members should be doing

Like it or not, as professionals working in a safety focussed field of engineering, fire engineers and fire risk assessors are probably more likely than members of other professional engineering institutions (PEIs) to find themselves in 'what now?' situations where there is a need to step out of normal procedure to prevent actions or inactions that present an imminent danger.

The Engineering Council's guidance to engineers and technicians^[1] refers to 'whistleblowing' being defined by the UK Whistleblowing Commission^[2] as: *'the raising of a concern, either within the workplace or externally, about a danger, risk, malpractice or wrongdoing which affects others'*.

This is quite a general statement.

It must be recognised that much of the work of the present-day fire engineer and fire risk assessor is advising clients of the dangers, hazards and risks associated with their premises or processes, and deficiencies or omissions in their working practices as they relate to fire safety. For instance, a fire engineer acting in a consultative role may identify a problem and advise a client that their practices are in breach of a particular legislative requirement. This would be part of the 'normal' process of risk assessment to identify and implement an action plan with the client to rectify the breach and would not normally constitute a situation requiring 'whistleblowing'.

In the wider world of engineering, most whistleblowers are 'internal' whistleblowers, who report misconduct, illegal behaviour or dangerous decisions of a fellow employee, group of employees or superior within their company through anonymous reporting mechanisms.

'External' whistleblowers, however, report misconduct, illegal behaviour or dangerous situations to 'outside' persons or organisations. In these cases, depending on the nature of the information, whistleblowers may report the misconduct to law enforcement or regulatory authorities or to the press.

In many international jurisdictions, whistleblowers are protected by law. In the UK, this is the Public Interest Disclosure Act 1998^[3]. There are a multiplicity of similar laws in other international jurisdictions, some based on the UK law (e.g. in Jamaica) and others (e.g. in the US) intended to protect whistleblowers in public office. Despite this protection, the 'external' whistleblower is usually faced with a significant dilemma.

One of the best known examples to illustrate this was the case of Roger Boisjoly^[4]. Along with four other engineers, he raised strenuous objections the day before the launch of the space shuttle Challenger on January 28, 1986, due to his and the other engineers' concerns based on previous flight data about the likelihood of failure of the booster rocket O-ring seals at low temperatures and that were to be experienced on the launch date. NASA managers overruled these concerns and the launch went ahead, with the resulting destruction of the shuttle 73 seconds after lift-off and deaths of all seven of its crew.

From^[4]:

The pre-launch effort by Boisjoly and others to stop the launch did not qualify as whistleblowing, some experts say, because the engineers did not go outside approved channels. But that legal definition is unrealistically narrow.

"If it is a distinguishing mark of actions labeled whistleblowing that the agent intends to force attention to a serious moral problem, both Boisjoly's and MacDonald's responses qualify. This feature is the foundation of the public's interest in whistleblowing. By bringing such serious problems to light, whistleblowers contribute to protecting the public's welfare." – Vivian Weill, Illinois Institute of Technology (1996).

We now know that Boisjoly met secretly with an NPR reporter shortly after the shuttle disaster to provide information about the problems at Morton Thiokol — clearly not an approved channel. Unquestionably, that was an act of whistleblowing,

but Boisjoly's request for anonymity prevented it from becoming public knowledge.

The actions of Roger Boisjoly were therefore initially as an 'internal' whistleblower in attempting to avert the realisation of an imminent risk and then shifted to an 'external' whistleblower after the tragedy intended to expose the decision process which led to the doomed launch.

For Roger Boisjoly, the outcome was that his position with his employer became untenable and he was also shunned by the industry in which he had worked.

From^[4]:

Boisjoly's moral courage earned him multiple awards, including one from the American Association for the Advancement of Science in 1988, and another from the Cavallo Foundation in 1990. Despite the awards, Boisjoly saw no hope of returning to his former career. Like many other blacklisted whistleblowers, he decided to go into business for himself. He obtained a professional engineering license and began consulting as a forensic engineer. In addition, he wrote papers and lectured to engineering students on a subject dear to him: ethical decision making.

So, is it actually fair and reasonable to expect a professional person, even if they are 'almost 100 per cent certain' that there is a problem, to 'blow the whistle' if the persons who should be acting appropriately on that professional's expert advice choose not to?

Surely, the responsibility for the inaction primarily sits with those persons who are duty holders under relevant legislation (e.g. In the UK, the Health and Safety at Work Act and the Fire Safety Order and similar legislation in other membership regions, such as Work Health and Safety Act in Australia, Occupational Health and Safety Act in South Africa etc)?

The real moral/ethical/personal dilemma comes when there is a realisation that those persons (the duty holders) are not going to act appropriately.

Some fire engineers may maintain the view that if you have advised the client then that is "good enough". But can they be sure? What if the worst happens? The engineer needs to think about the questions that barristers may ask of a professional person in a criminal court or inquest where that

professional person may have had information that could have enabled a body with jurisdiction to step in before it was too late.

The Engineering Council guidance to engineers delivers this important message about the duties of the engineer or technician:

Your obligation to act when encountering something inconsistent with your Code of Conduct arises under that Code, but is not a legal requirement. However, you may become liable in law if you fail to take some action when it is part of your own professional duty. Your professional engineering institution's Code of Conduct may have changed since you joined, so it is important to ensure that you are up to date on your obligations.

The following case studies are based on real incidents, but modified so that the premises and persons involved cannot be identified.

Case Study 1

The client wanted a building where travel distances from certain rooms exceeded guidance. A fire engineer was brought in who then commissioned a second consultant to carry out computer modelling to assess the risk.

The modelling showed that the rooms in question were acceptable, but that other rooms in the building (that were not the subject of the original concern) were a problem. The second consultant felt it necessary to make reference to this problem in his report. However, the fire engineer asked for that to be removed from the report before it was sent to the fire engineer's client since it was not the question being asked.

The second consultant complied only after the fire engineer showed that the other rooms were not a problem for other reasons.

Was the second consultant correct in insisting that the new findings be included in the report even though it dealt with issues that were not part of the agreed work?

Case Study 2

A fire engineer away on a business trip stayed in a small two-storey hotel. On arriving at the hotel the fire engineer found that, because the weather was very hot (and there was no air conditioning), the

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hotel staff had wedged a number of stairway fire doors open and opened windows.

However, the staff did close the doors at night. All bedrooms had openable windows.

The fire engineer considered the risks, decided that, all-in-all, the risks were low and therefore did not take any further action to raise his concerns with hotel management.

Was the fire engineer correct in this approach?

What if the doors were not closed at night?

Should the fire engineer have approached the hotel management? Under what authority? Should the fire engineer have notified the local fire authority?

Case Study 3

A fire engineer, accompanied by the client, was carrying out an examination of a factory building where construction work was going on. On the further side of the factory the engineer saw a dangerous practice; welding with no safety glasses in use. Although it was nothing to do with fire safety, nor part of his remit, the fire engineer notified the client of his concern.

Was this sufficient? What more could or should the fire engineer have done?

Case Study 4

A fire engineer was contracted to carry out a detailed fire engineering design for a planned public building to provide a smoke control system involving fans, reservoirs, smoke curtains and make-up air intakes. The design was provided to the client.

But when the fire engineer was in the premises a few months later (after the building was completed and opened) they found that while most of the smoke control system was properly fitted, the make-up air intakes had been left out.

The fire engineer contacted the client to express their concern. The client said that leaving out the intakes saved money – and in any case was no concern of the fire engineer.

What should the fire engineer have done? Should the engineer have notified building control or the local fire authority?

Case Study 5

A fire safety risk assessor carried out a risk assessment of a public building and noted a number of fire doors that did not close properly and which were assessed as being in urgent need of remediation. The client agreed to deal with the matter immediately.

But when the risk assessor returned to the premises a few weeks later the work had not been done.

The risk assessor contacted the client to remind them of the urgency of the work.

Was this sufficient? What more could the fire engineer have done? Should the risk assessor notify the local fire authority? Could the risk assessor be vicariously culpable if they did not notify the local fire authority?

Case Study 6

A fire safety risk assessor was carrying out a risk assessment in an assembly building.

When checking final exits from the main space, the risk assessor discovered that one of the only two fire exit doors had become seized shut in its frame due to the required regular operability checks of fire exit doors not having been carried out.

The Responsible Person's representative attendant at the site inspection had previously stated that the risk assessment visit must be concluded in time for a young persons' event to be held that evening.

The risk assessor refused to leave the building until the RP's site representative brought someone on site with a sledge hammer to release a final exit door that had become rusted in place.

The risk assessor reported the absence of adequate checks of final exits doors as a 'red' significant finding in the fire risk assessment for the premises and identified this as an issue that should be actioned immediately by the Responsible Person.

When reviewing the fire risk assessment 12 months later, the risk assessor identified that the Responsible Person had not implemented a procedure for properly checking the function of final exit doors, there was no evidence that any checks had been done and the door in question had not been modified.

What should the risk assessor have done to reinforce the seriousness of this breach with the Responsible Person? Would it be pertinent for the risk assessor to threaten possible whistleblowing to the fire authority at this stage?

Case Study 7

A fire engineer was appointed to act in the capacity of Expert Advisor in the case of a listed building that has been converted into apartments and where inspection works in relation to leaking roofs, windows and plumbing had revealed that fire stopping was not been carried out in concealed voids, including between apartments and the service void in the protected common corridor.

In his review of the case files that had been submitted by the client, the fire engineer noted that the current Fire Risk Assessment for the premises stated that the standard of fire compartmentation within the premises was adequate and with no significant findings reported. This being despite the absence of adequate fire stopping being obvious to

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anyone who could have carried out an inspection above the corridor lay-in-grid suspended ceiling tiles.

Furthermore, the fire engineer established that the fire risk assessment was carried out by a person listed on a fire risk assessors’ register operated by a professional body. The fire risk assessor was also an employee of the local authority fire brigade with the jurisdiction for enforcing the Fire Safety Order for the common areas at the premises in question and had been carrying out fire risk assessments for clients as part time work outside of his employment with the fire authority.

When interviewed by the fire engineer, the fire risk assessor stated that he had not looked above the suspended ceiling in the corridor.

Would it have been right for the fire engineer to have advised his client that he had a duty to report the fire risk assessor to the professional body with whom he had registration and to his employer, the local fire and rescue authority?

Case Study 8

A fire engineer was instructed by a solicitor acting for a defendant in a civil claim being heard in the Construction and Technology Court to provide an Expert Witness report to opine on the alleged defects to structural fire protection in an institutional residential building.

In the course of her inspection of structural fire protection at the premises in question, the fire engineer found that there were also significant problems with the fire stopping in compartment floors and compartment walls.

As her duty was to the court and the additional issues in relation to fire stopping would be material facts of interest to the court, the fire engineer included notes of these additional defects in her expert witness report and issued it to the instructing solicitor.

As her expert witness report was not beneficial to the defendant, the solicitor took the decision that the fire engineer’s expert witness report would not be used and advised the fire engineer that her further services as an expert witness were not required and asked for a final account of her fees for settlement.

The fire engineer had knowledge of serious

additional defects in a building which related to the fire strategy of that building which relied on fire compartmentation for a phased evacuation strategy.

From her review of the case files, including letter of claim and the expert report instructed by the claimant’s solicitor, it appeared that these additional fire stopping defects were not known by the duty holders in control of the premises.

What should the fire engineer have done in this situation?

The fact is that the concept of ‘whistleblowing’ in the fire safety engineering, fire risk assessment, and fire safety consultancy fields covers countless different possible issues, circumstances and players.

Some situations would be ‘clear cut’; for instance, there are (hopefully) very few readers of this article who would not report the owner of a night-club or live music venue for repeatedly locking or blocking fire exit doors from the premises and ignoring reasonable and repeated advice to do otherwise, and to accept the probably inevitable consequence of losing that client as a result.

Some fire engineers are familiar with clients actually pleading for the fire engineer to ‘dob them in’ in situations where the client is struggling to get the resources from ‘The Board’ to deal with the fire safety issues. In these cases the clients see that the attendance of a person in uniform and the issuing of an enforcement notice is the only thing that will loosen the purse strings.

We have recently seen reported the case of whistleblowing to trading standards in relation to the fraudulent marking and supply of non-fire resisting glass as fire resisting^[5]. This action was taken by one supplier of fire resisting glass who became suspicious of the unrealistically cheap prices being offered by a competitor.

Is the advisory note published by ASFP in relation to the use of expanding foam fire-stopping an example of what is effectively ‘internal’ whistleblowing within the fire safety industry in the face of the paucity of a clear field of application information from manufacturers and suppliers?^[6,7]

So, ‘whistleblowing’ is an issue with many dimensions for those working in the fire safety engineering field.

So what should the IFE be doing?

The Engineering Council's guidance to Engineers and Technicians raises the expectation as follows...

If the concern is a technical one which does not go beyond the application of engineering principles, your professional engineering institution may be able to offer guidance and advice. You should follow your professional engineering institution's guidance and advice, and make use of any procedure it offers for raising, discussing and monitoring a technical issue.

... and, in its guidance to PEI's, outlines what is expected of the IFE:

Professional engineering institutions are required to have a Professional Code of Conduct which includes the obligations set out in the Engineering Council's Guidelines for Institution Codes of Conduct. Professional engineering institutions must consider whether their Code of Conduct adequately covers whistleblowing, and revise the code where necessary.

However, professional engineering institutions are not trades unions and their charitable purpose prevents them from providing members with representation in the event of action being taken against them by the state, their employer or any other organisation.

As discussed above, the IFE cannot take on the role of an 'advocate' in terms of defending a registrant engineer or technician should action be taken against them for 'whistleblowing'. Likewise, shouldering or sharing the duty of the fire engineer to raise matters directly with the authority having jurisdiction (AHJ) when dealing with a matter of imminent danger, or acting for the fire engineer in the event of criminal or civil proceedings arising from the fire engineer's whistleblowing would not be an appropriate course of action for the IFE.

However, it is made clear by the Engineering Council's policy on whistleblowing and guidance to PEIs that there is an expectation for the IFE to have its own policy and procedures in place to provide support to its registered engineers and technicians. The Engineering Council's guidance states the following:

The scale and scope of support and what is appropriate for its members is left to professional engineering institutions to decide. Professional

engineering institutions may wish to consider the following:

- *Signposting individuals to organisations expert in providing whistleblowing advice*
- *Publicising and promoting good practice for individuals and companies (ideally with examples)*
- *Providing and/or promoting formal training for members about how to respond in whistleblowing situations*
- *Appointing an ethics officer*
- *Providing limited funding of independent legal advice to allow individuals to understand the consequences of potential actions they might take.*

The Institution of Structural Engineers (IStructE) has developed and implemented CROSS (Confidential Reporting of Structural Safety). CROSS makes it clear that its purpose is not to assist in the reporting required to identify and resolve the issue, but that it is 'post-resolution' reporting of cases that are then redacted and published by SCOSS (Standing Committee on Structural Safety) for the purposes of learning from incidents and near misses.

Perhaps the IFE could introduce a similar system? (CRoSCiFE Confidential Reporting of Safety Concerns in Fire Engineering?)

But, perhaps the IFE needs to be a bit more pro-active than this in helping its members and registrants with the pre-resolution matters of whistleblowing. It would be sensible for the IFE to consider something along the lines of the following as the form of an auditable and recorded protocol for initial steps to be taken as 'principles for escalation':

1. Write to your client formally advising of concerns and ask for a meeting.
2. At the meeting, inform the client that you will not be able to act further in a professional capacity for the client in relation to matters of fire safety [on/at project] until which time that meaningful steps are taken to address your concerns (e.g., implement an action plan to address the significant findings identified in your FRA). Keep notes of the meeting.
3. Advise that this position will be communicated formally to the client in a letter from you and that this letter will state that no further contact from the client on the matter of fire safety [on/at project] will be assumed as meaning that the client is implementing the aforementioned steps without further assistance from you.
4. Your letter will also make it clear that the

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potential liability in law which applies to you as part of your professional duty will require you to raise your concerns directly with the enforcing authority should it come to light that the client has not taken these steps within what would be regarded by a court of law as a reasonable timeframe to do so.

Also, what support should the IFE be able to offer to an IFE member who has ‘blown the whistle’ such that he/she can approach the IFE to notify of the action that he/she has taken and receive some meaningful professional support from the IFE involving peer members/registrants?

To that end perhaps there could be a panel of very experienced IFE members who can review the specifics of the case and provide an official statement of support from the IFE for the action of its member based on the information presented by the member?

All members of the IFE – fire engineers, fire risk assessors, and members of fire services – are, in various ways, in the business of saving lives and reducing losses from fire.

It is inevitable that any of us could, unfortunately, and (hopefully) rarely, be witness to an action or inaction, or an inappropriate process, or a design flaw, which could put lives at risk and to which we are obliged to react.

Where other courses of action fail to have any effect, then we may have to resort to “whistleblowing”. Do we know how to do this? Should the IFE be able to offer support to us in this situation? And what form might such support take?

By virtue of drawing on the experiences and knowledge of its authors, this article is largely UK-centric in terms of its references. However, it is understood by the authors and needs to be appreciated by the Institution in its consideration of future policies and procedures that the various issues and challenges presented are experienced by the IFE’s members around the world. 🔥

Members may like to contact the IFE with their views on these issues at:

Consultations@ife.org.uk

References

- [1] Guidance on Whistleblowing for engineers and technicians. Engineering Council.
<http://www.engc.org.uk/EngCDocuments/Internet/Website/Guidance%20on%20Whistleblowing.pdf>
- [2] UK Whistleblowing Commission. <http://www.pcaw.org.uk/law-policy/whistleblowing-commission>
- [3] Public Interest Disclosure Act 1998 - <http://www.legislation.gov.uk/ukpga/1998/23/contents>
- [4] <https://whistleblowing.us/2012/02/remembering-roger-m-boisjoly-challenger-disaster-whistleblower-1938-2012/>
- [5] <http://www.bbc.co.uk/news/uk-northern-ireland-38596028>
- [6] <http://asfp.org.uk/webdocs/ASFP%20E-Bulletin%20Issue%208.pdf>
- [7] http://www.asfp.org.uk/webdocs/Guide_to_inspecting_PFP_for_Fire_Risk_Assessors.pdf

IFE 2017 Annual Report

As you are aware the Board agreed in 2015 that the annual report, including the consolidated financial statements, will be available to download by all IFE voting members via the Institution’s website

The IFE Articles of Association allow for the communication of statutory information to its members electronically.

Voting members will be notified in writing when the annual report will be available to view/download from the IFE’s website rather than sending a copy directly to you. The report will

be available at least 21 days before the scheduled 2017 AGM.

All voting members will also be notified in writing of the Notice of the 2017 AGM, any special resolutions and any voting and proxy information.

If you still wish to receive a hard copy of the 2017 annual report, please contact IFE Head Office at any time either by email to

info@ife.org.uk, or alternatively you can write to us at IFE House, 64-66 Cygnet Court, Timothy’s Bridge Road, Stratford-upon-Avon, CV37 9NW, UK and we will arrange to have one sent directly to you.

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