

The testing and inspection of espresso machines

Confusion in the regulations

A discussion document on the pressure-vessel issue, by the Coffee Council.



The Coffee Council has been tracking the discussions in the trade which have followed the explosion of an espresso machine in a public cafe.

The incident has brought to light the legal requirements concerning safety inspections of espresso machines. It has also brought back to trade attention the matter of whether many machines in commercial use are in fact examined and certified according to the regulations.

This in turn has led to the question of whether those regulations are clear.

As the founder of the Coffee Council has observed, many months after the incident, 'all that is clear... is that the situation is not clear'.

In the following pages, we look at the various opinions surrounding the matter, and illustrate why there is a dangerous lack of agreement.

The Coffee Council invites the catering industry to consider the matter and to join us in the determination that the caterer's responsibility with regard to pressure vessels must be clarified, in straightforward language, without delay.

The Coffee Council

The Coffee Council is an informal association of members of the catering trade, specifically from the coffee side of the trade, who believe that it is valuable for issues of importance to be highlighted and discussed throughout the trade.

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This report has been put into document form on behalf of the Coffee Council by the cafe trade's leading news magazine, Boughton's Coffee House.

www.coffee-house.org.uk

It is widely believed in the coffee trade that very few espresso machines are inspected in accordance with the law.

There are various opinions as to whether this is because many catering operators simply do not know that there are requirements surrounding espresso machines, or whether they consciously choose not to comply with the regulations and requirements.

It is also widely believed that there are certain confusions about who is, and who is not, allowed to inspect and certify an espresso machine. This has led to disagreement and confusion regarding the effect on a caterer's insurance protection.

As at May 2011, it is known to the Coffee Council that certain appropriate authorities have consulted experienced people in the coffee trade on the subject of safety examinations and certifications of espresso machines.

It is possible that this work currently being done may result in a more general appreciation of the situation among those in the catering trade who use espresso machines in their business, and clarification of how examinations may be carried out.

For the moment, the only thing that is certain is that a great deal of confusion and disagreement exists.

In the following pages, we examine how the situation has arisen.

The situation is not yet clear or resolved. However, until it is, the Coffee Council suggests that it is in the interest of every coffee-house operator and general caterer to appreciate that a legal requirement regarding espresso machines does exist, and that it is in a caterer's own interests to review the situation and assure themselves that they are legally covered, to the satisfaction of their insurer.

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1. The general situation, and how it came to attention at the present time.

In the autumn of 2010, an espresso machine exploded in a supermarket café in Hampshire, resulting in hospital treatment for several people. The identity of the café, the machine brand, or the supplier are all irrelevant to this document, but within the coffee trade, the matter is generally known as 'the Sainsbury's explosion'.

This brought to attention the matter of the pressure-vessel regulations, which in general cover the majority of espresso machines likely to be found in a commercial catering situation. These regulations say (and we are generalising and speaking broadly here) that a commercial espresso machine must be inspected regularly, in a stipulated manner. It is widely believed that the appropriate period between inspections is one year. The inspection is referred to as 'a written scheme of examination', the phrase meaning that the certification document sets out what was examined, and how.

This in turn brought to general attention the question of how an inspection is carried out, and who is qualified to do it.

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This is, fortunately, a very rare picture – very few people have ever seen anything like this, and we all trust that it will never be seen again. Many people in the coffee trade say they can recall only two such incidents in the last twenty years.

The item in the picture was once an espresso machine.

We think this picture illustrates why the Coffee Council think this matter is worth serious thought by all who work with such equipment.

Pic: source unknown

In Boughton's *Coffee House* magazine in the autumn of 2010, the Coffeetech company, a very experienced name in espresso engineering, brought up a new angle on the matter of espresso-machine inspections - the question of exactly who is qualified and permitted to undertake such an inspection. It was suggested that any espresso engineering company which undertakes the general servicing of a caterer's espresso machine cannot also be the person who inspects and certifies that machine, for fear of a conflict of interest.

Therefore, the actual inspection of the espresso machine has to be handled by an independent inspector, referred to in some regulations as the 'competent person'.

It was subsequently observed that this causes administrative problems and expense for every caterer – they have to arrange for an independent inspector to assess their machine, and also to have their normal engineer on hand to open the machine up for the inspector, and put it together again after the inspection. This effectively requires two bodies to be paid, and an amount of organisational work to get them both on the premises at the same time.

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The raising of this subject to general trade attention resulted in a fair amount of activity.

The Association of Espresso Engineers entered into an agreement with a third-party inspection house, and announced that it could now handle all the organisation and paperwork involved in getting the espresso engineer and the 'competent person' on site at the same time. The caterer would simply receive one overall invoice and be free of the organisational hassle.

This was followed by the creation of Espress Test, a company in Cornwall formed by Mark Allen, an espresso engineer. He set up to become a 'competent person' specialising in espresso machines.

He said that while a caterer's usual espresso engineer was not allowed to be the 'competent person', the regulations permitted the reverse - that is, the 'competent person' could be someone qualified in espresso work, which meant they could open up the machine for themselves and put it back together after the inspection, thus saving the caterer a lot of organisation, and the requirement to pay for the time of two people.

This was all disputed by another independent engineering company, who said that they had been told by the Health and Safety Executive that a caterer's normal espresso engineer could indeed serve as the 'competent person'.

The current situation, then, is that there is disagreement in the trade. Is it, or is it not, acceptable for an everyday espresso engineer who works on a client's machine, to then inspect and certify that machine?

This is considered an important distinction. In the event of an

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accident, if the caterer has employed the wrong person to inspect and certify the machine, their insurance company could declare their cover to be void.

2. What the engineers said:

The following items all come from *Coffee House* magazine, which appears to have been the only trade magazine to cover the issue. The report which first brought the matter to general attention said this:

Coffeetech warned café owners not to take short cuts on the matter, and to be very careful about how their inspections are done - it is widely suggested that not all those who offer inspection services are qualified to do so. Specifically, a cafe operator's normal espresso engineer may not be allowed to inspect and certify the machine.

"Parts of the appropriate Act are ambiguous," says Duncan Gaffney of Coffeetech. "This is true of the requirement to have tests and assessments carried out by a 'competent person' - the Act itself does not define the necessary qualifications of a 'competent person'. However, the Health & Safety Executive's own Approved Code of Practice is explicit in doing so.

"I emphasise this because there is much confusion in the market. We see various companies and some very experienced self-employed engineers promoting boiler inspection and maintenance services. But do they satisfy the qualification criteria, and are they suitably independent? In most cases the answer is 'no'.

"And any user or owner of espresso machines is taking one hell of a risk by using inspection services provided by a company that is operating outside of the HSE's Approved Code of Practice."

To illustrate the situation, Coffeetech itself applied to be an inspector - and was turned down.

"We must certainly rank as one of the most experienced specialists in this field. We asked the HSE if we might be assessed for providing inspection services, based on our provable and documented competency and experience.

"Their answer was unambiguous - even with our qualifications and experience, it would not be possible for us to inspect and certify, due to the potential conflict of interest that would exist between being both the maintainer and safety inspector of the same machine!"

The AIEE's move was reported thus:

The Association of Independent Espresso Engineers is to establish a programme which will make it easier for caterers to fulfil their legal obligations in the use of 'pressure vessels' such as espresso machines. The AIEE has formed a partnership with Bureau Veritas, a specialist inspection and certification organisation which works across all kinds of industry.

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The arrangement between the AIEE and Bureau Veritas means that a caterer can now handle the matter in a far simpler way - one call to an AIEE member, given 28 days' notice, will allow for engineer and inspector to be onsite at the same time.

Mark Rosen, the business development manager for BV, said:

"We are a specialist accredited third-party inspection organisation which handles work on pressure vessels from counter-top boilers to power stations.

"For espresso machines, we have to have access to the inside of a machine, and so we need the engineer on site anyway - the problem up to now is that it is the operator's responsibility to have the inspection done, and sometimes it is their insurance company which calls us to organise the inspection. Having the engineer, the inspector, and the café operator all onsite can be a nightmare of organisation.

"Now it is one call - the AIEE handles the organisation and the one invoice. And as part of the partnership with the AIEE, we have given them preferential rates."

Then Mark Allen of Espresso Test was reported on his new venture:

"I certainly am going out on a limb with this, but I believe that it is the case that, as everybody in the trade suggests, a vast number of caterers just don't have the legal 'scheme of examination'. I shall have to be very careful of providing a service that caterers need, without marketing my services by scare tactics. It would be very easy to panic coffee shop owners who don't know their obligations.

"I had begun looking into this 14 months before the Sainsburys incident. I began to realise that café owners were paying maybe £150 for the insurance company's inspector, and maybe the same again for the espresso engineer to be on hand. I also realised that the 'competent person' hired by the insurance company is probably not experienced in espresso machines - he may be doing walk-in fridges next.

"So the regulations became my bedtime reading for months, because there are a vast number of cross-references to work through, and it turns out that the 'competent person' can be an engineer and dismantle the machine for himself, so long as he doesn't actually do any engineering repair on it.

"It seems to be OK to me to replace anything I need to as a result of the inspection, so long as I do not actually perform any 'engineering' work. I am allowed to replace a faulty valve, or replace a gasket."

3. What other engineers said:

The news of Mark Allen's move provoked two messages of complaint to the trade magazine, both from the same engineering company.

The first message said:

"I have spoken to HSE (hse.gov.uk) and confirmed that any engineer that looks after an espresso machine and is confident with the schematics and pressure test values of said machine and is prepared to list on said test machine, can

carry out such a test and is a 'competent engineer, Regulation 7-8'. This also allows issue of a test certificate in compliance with HSE regulations."

The second message said:

"I have enquired with HSE on the capabilities of an espresso engineer visiting site to perform a pressure test. HSE states that 'the engineer performing the pressure test is more than capable of certifying the test and certificate, providing they know the schematics and pressure values of said machine'. Your article (in *Coffee House* magazine) contradicts this and is not correct to the law and regulations they produce."

This indicates that certain engineers believe it is in order for a caterer's normal engineer to undertake a pressure vessel inspection on their espresso machine.

However, it was also suggested by several engineers that different spokesmen from the HSE had said different things to different people.

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Several engineers were very quick to respond to the above:

One said: "This is wrong. The HSE is not the judiciary. However the HSE is responsible for prosecuting firms and individuals who break health and safety laws."

The second said: "There do seem to be a number of different opinions on the regulations."

A third said: "My communications with the HSE suggested that they would not approve of an engineer offering this as an additional service - once again, a case I think, of an individual's interpretation of the law."

"In all fairness though, it is not the responsibility of the engineer - the responsibility lies with the operator to select a suitably competent person. If the operator selects their current engineer and said engineer has very little in the way of scruples, then at the end of the day he may be quite entitled to give that service to the operator... however, the regulations do refer to proper standards of professional probity."

"The danger is that if an engineer certifies a pressure vessel as safe, then that pressure vessel fails and injures someone, and the case goes to court, then the buck stops with the person who under the regulations takes the responsibility for saying it is safe. The engineer's solicitor will be unable to build a defence as the engineer could not, hand on heart, say in court say that he was a) not reporting on his own work, or b) was fully impartial, due to an existing (or a potential future) trading relationship."

"Another scenario might be where the engineer says the machine needs work when in actual fact it does not, looking for additional income (or even a machine sale). This temptation must be removed to ensure full impartiality."

"For any firm to be offering these services alongside an engineering service should ring integrity alarm bells with an operator."

"I have spoken to HSE (hse.gov.uk) and confirmed that any engineer that looks after an espresso machine and is confident with the schematics and pressure test values of said machine and is prepared to list on said test machine, can carry out such a test and is a 'competent engineer, Regulation 7-8'. This also allows issue of a test certificate in compliance with HSE regulations."

This indicates that certain engineers believe it is in order for a caterer's normal engineer to undertake a pressure vessel inspection on their espresso machine."

Another comment was: "My position as an engineer with a machine distributor enabled me to learn the manufacturer's position on the issues - in their statement to distributors they actually stated: 'We strongly advise that you do not provide any boiler certificates for inspection. If you do you could expose yourself, should the HSE ever be involved as a result of any incident'."

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Curiously, as the matter became more complex, more people began looking at the possibilities of becoming an 'independent tester'.

One of the engineers who has examined the situation reported receiving contact from a would-be independent machine examiner:

"This really is a can of worms - there are engineers out there that clearly have not understood the regulations, I wish them well but I fear that there will be repercussions in the event of an unintentional release of the stored energy in a boiler.

"I have had a call from an engineer who just wanted a chat as he was 'doing something' on this subject - a little digging later I found that he is fairly newly set up to repair espresso equipment and yet he is following a written scheme that he wrote to certify boilers and is doing the repairs on them, responding to issues throughout the life of the machine, etc. He is comfortable with the fact that if he finds a fault he offers a quote to come back and 'fix' and that the client is free to employ the services of an alternate company.

"This is not something that I would be comfortable with. My policy is: if I encounter a problem that would cause a fail, I offer to replace the part at standard retail price, with no big mark-up or any additional charges for fitting. I will not repair the part (although as an engineer I could do so) as if I repair the part I would then be reporting on my own work. This gives me the confidence to be comfortable of my provable integrity."

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continues....

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4. What the authorities say

A particular problem lies in establishing who the appropriate authority is/are. All the engineers quoted above have referred to the Health and Safety Executive - but is that correct?

The HSE response:

In an enquiry from *Boughton's Coffee House* magazine, the Health and Safety executive was invited to say, in plain language, whether or not an operator's existing engineer was permitted to carry out inspection and certification. The HSE issued this response:

"Commercial coffee boilers generate steam and as such they are covered by the Pressure Systems Safety Regulations 2000 (PSSR) which requires completion of a Written Scheme of Examination (Reg 8). Under Reg 9 the examination itself must be carried out by a competent person. HSE has produced an Approved Code of Practice (ACoP) for the PSSR and paragraphs 35 to 43 and 104 to 108 of the PSSR ACoP outline the attributes of a competent person. Here is the link to the ACoP (publication L122) <http://www.hse.gov.uk/pubns/priced/l122.pdf>.

"It is for the user/owner of the equipment (the dutyholder) to appoint a competent person. In the particular scenario you mention, it is acceptable for the espresso engineer who maintains the equipment to inspect and certify provided he has the necessary expertise, knowledge and experience to do so (one would assume this is the case if he is empowered to maintain the machine). In any case, especially if he is an in-house appointee, he must have suitable independence from the operating function so that he is not unduly influenced, i.e., he must have the authority to say that the equipment cannot be used."

That suggests that the existing engineer can act as inspector/certifier, although impartiality appears to be a matter of trust.

However, is the HSE the correct authority? Several bodies have referred to UKAS (the United Kingdom Accreditation Service) as being the appropriate authority to decide who can, or cannot, be an inspector. An enquiry was made to UKAS.

The UKAS response:

The first response from UKAS was an informal one – they said:
"It may be useful for you to know that UKAS role is to 'check the checkers'. It uses criteria usually set by regulation, legal requirement, guidelines or codes of conduct. It does not set these criteria. It assesses whether the inspection bodies are able to proficiently fulfil, on an impartial and on-going basis, the relevant technical requirements outlined. For espresso machines, I believe these will fall under one of the following:

- The Pressure Systems Safety Regulations 2000 (SI 2000 No.128)
- Pressure Systems Safety Regulations (Northern Ireland) 2004 (SR 2004 No.222)
- Pressure Equipment Directive 97/23/EC
- Pressure Equipment Regulations 1999

(the list continues over...)

- The Provision and Use of Work Equipment Regulations 1998
- Management of Health and Safety at Work Regulations 1999
- Health and Safety at Work etc. Act 1974
- SAFed Guidelines on Periodicity of Examination (PSG1)

They added: "you may wish to talk to SAFed (the Safety Assessment Federation) which represents the independent inspection industry."

Later, UKAS made a formal statement. It said:

"UKAS is the sole body recognised by Government to assess organisations that provide certification, testing, inspection and calibration. UKAS accreditation demonstrates an organisation's competence, impartiality and performance capability against internationally recognised standards.

"UKAS does not directly undertake the process of inspection. It accredits the bodies or individuals who undertake this process as directed by the relevant standards, guidelines or regulations. It is not directly responsible for setting the criteria by which inspections are undertaken.

"Pressure Vessels such as espresso (*sic*) machines require inspection under the Pressure System Safety Regulations 2000. This provides a definition of approved body and also gives guidance on competent person status. The UKAS website www.UKAS.com provides more detailed information regarding the scope and operating parameters of accreditation."

Their first paragraph said that they are the sole body to assess organisations which provide testing services, but they failed to make any comment on who those organisations could be. However, their confirmation that they are the sole body may mean that reference to the HSE was a red herring, and that enquiries to the HSE were misplaced.

The third body referred to was SAFed, whose reaction was the most comprehensive of all.

The SAFed response.

Unlike the other bodies, SAFed made its response from the top - this came from the chief executive, Richard Hulmes.

"You are quite right that espresso machines contain pressure vessels and as such are subject to the Pressure Systems Safety Regulations 2000 (PSSR). However, it is not specifically true to say they must be inspected annually, as technically they should be examined to a written scheme of examination (PSSR Regulation 8), which should cover all protective devices. Owners of such machines are responsible for ensuring they have a 'written scheme of examination' for their machine.

"Details of what competencies are required to provide a written scheme are also included in the HSE Approved Code of Practice to the Regulations. Whilst I have no doubt and have some empathy with experienced coffee machine maintenance and service engineers, the competencies required to access, service and repair such machines are subtly different from those required to act as competent persons, to carry out thorough examinations to a written scheme,

"Often it may appear that the competent person merely 'has a look' and carries out certain functional tests, but there is much more behind this process..."

"Whilst it is likely the service engineer will have a greater practical knowledge about the particular make of machine under examination than the surveyor (the 'competent person'), the latter is also trained in carrying out risk assessments, assessing the type of use, operating persons, environment, mobile or fixed installation, water scale, etc., to determine the potential rate of deterioration."

which includes assessment of the continuing credibility of the scheme, and to assess their continued safe use.

"Often it may appear that the competent person merely 'has a look' and carries out certain functional tests, but there is much more behind this process, which normally is only evident if there are concerns. Firstly they should have a detailed understanding of the legislation Pressure Equipment Regulations (if they apply) and or The Supply of Machinery (Safety) Regulations as well as PSSR and secondly they must be able to detect defects and assess their importance to the continued safe use of the machine. The examination is not like an MOT, which only assesses safety at the time of the examination, but must also predict its continued safe use to the next thorough examination.

"Whilst many of the activities may be similar and, indeed, it is likely the servicing engineer will have a greater practical knowledge about the particular make of machine under examination than the surveyor (the 'competent person'), but the latter is also trained in carrying out risk assessments, assessing the type of use, operating persons, environment, mobile or fixed installation, water scale, etc., to determine the potential rate of deterioration.

"In some cases it may be difficult to test the pressure release valve, over-ride the control mechanism etc or accurately assess the state of the pressure vessel. Engineering judgement would often be required requiring the qualifications outlined in PSSR (nominally incorporated engineer level).

"The HSE recommend that an independent competent person carries out the thorough examination. This is for a number of reasons - firstly if the servicing engineers carried out the examination, they would be examining their own work. Clearly they would be unlikely to 'fail' their own work and report any imminent danger defects. Secondly, servicing engineers would technically have a vested interest in the result as they would provide the repairs. This does not necessarily mean they would be any better or worse, merely that they are not independent. In addition, pursuant to Regulation 10 of PSSR, the competent person should also send any report which lists imminent danger defects to the enforcing authorities.

"Most competent persons carrying out such thorough examinations are also employees of companies which are accredited by UKAS to ISO/IEC 17020 (the international standard for Inspection Bodies) which is acknowledged by the HSE as one method for establishing competence. This is probably why you were referred to UKAS.

"The conflicting information given by the HSE is down to the legislation. This does not define exactly who or what a 'competent person' is, so technically anyone could set up business and carry out thorough examinations (interestingly the same also applies to tower cranes, unlike gas installations and MOTs, this process is not 'registered'.) Hence the law says anyone can, provided they can demonstrate their competence, but the HSE advise it should be an independent competent person and that the competent person should be someone with sufficient qualifications, training and experience in the law, examination and inspection techniques, understanding of the operation of the machine to be able to inspect the equipment, identify defects and assess their importance in relation to the continuing safe use of the machine. They should also have access to specialist services such as design, operation, materials engineering and non-destructive testing.

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"This is for a number of reasons – firstly if the servicing engineers carried out the examination, they would be examining their own work.

"Clearly they would be unlikely to 'fail' their own work and report any imminent danger defects."

"In summary therefore - anyone can, but they should be able to demonstrate to the enforcing authorities that they fulfil the competencies outlined."

Asked further about the role of the various authorities, Mr Hulmes added:

"It can be confusing, but the enforcing authorities are the Health & Safety Executive and Local Authority Environmental Health Officers. They are effectively the 'Health and Safety police' and carry a warrant with a range of intervention powers including notices (improvement and prohibition), putting equipment 'out of use' and prosecution under the Health and Safety at Work Act 1974 (their favourite) as well as the subordinate Regulations (PSSR, etc). For the most part I would expect the local authority EHOs to be involved as they carry out the majority of routine inspections of coffee outlets, restaurants etc., and the HSE are usually only called in if there is a major incident or one of complex technical content, as was with the incident in Hampshire.

"UKAS (United Kingdom Accreditation Service) are the Government authorised accreditation service which provides accreditation services to the international standards. Accreditation is a purely voluntary process but is acknowledged by the authorities as demonstrating competence, good governance etc.

"Further to this, as you will probably be aware, many coffee machines in Europe are made in Italy or Switzerland. They are pretty much all 'self-certified' by the manufacturer - ie., the manufacturer declares it safe for use and affixes the CE mark claiming it satisfies the essential health & safety requirements outlined in the Machinery Directive. Interestingly most coffee machines come under the Machinery Directive (or Supply of Machinery (Safety) Regulations 2008 in UK) as the Pressure Equipment Regulations only covers pressure vessels over 2 litres. As you may imagine no manufacturer is not going to 'pass' his coffee machine! That does not mean to say they are unsafe but perhaps may not have undergone the testing regime imposed by an independent certification organisation such as Bureau Veritas, TUV, SGS, Intertek etc. Often changes and modifications are made to the machine or manufacturing process which may or may not affect the safety, but rarely does it undergo further testing to ensure compliance."

Therefore, SAFed suggests that the HSE does recommend independent inspection (which is not what one engineering company had claimed) but says that legislation does not actually define who can be a 'competent person'.

5. What the insurance companies say:

There is a great interest in this from the insurance companies. However, their interest is extremely difficult to define - it is suggested that in the matter of an explosion, a caterer's public liability insurance could be deemed void if their espresso machine had no written scheme of inspection.

Whether that condition would also render a caterer's insurance void in the event of an accident allied to an espresso machine (such as scalding from a steam wand) is a matter which could be debated for a long time, and as Mark Allen pointed out in an interview with the trade press, marketing either inspection or engineering services by 'scare tactics' is a very undesirable thing indeed.

However, the insurers have expressed their interest in the situation. The trade

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magazine *Boughton's Coffee House* did report at one stage that one insurance company had considered bringing out a statement of advice for caterers - but had then realised all the various difficulties, and decided not to.

Those insurers who have been asked to comment on the situation have done so in the kind of obscure language which they favour. This is the statement which was made to an espresso engineering company by one very big insurance company:

"The Pressure Systems Safety Regulations 2000 (PSSR) sets requirements with respect to operation, maintenance and examination of pressure systems used at work within the UK. Any equipment that contains steam, regardless of its pressure, has to be treated as a pressure system. Hence all cafeteria-type boilers used at a place of work are therefore pressure systems. As well as being properly operated and adequately maintained cafeteria boilers are also required to undergo periodic examination by a competent person in accordance with a Written Scheme of Examination. This WSE is a document which specifies what parts of a specific pressure system need to be examined, the nature of that examination and the frequency of the examination. It is either drawn up or certified by a competent person.

"The term 'competent person' is defined in PSSR and whilst it can be a competent individual person it more commonly applies to a competent body of persons. The Health and Safety Commission Approved Code of Practice provides guidance on how the regulations should be applied. This includes criteria on the necessary attributes of a competent person. Cafeteria boilers of the electrically-heated type are categorised as "minor" systems. A competent person or body of persons who examines a minor system needs to have the following attributes:

- At least one member of staff qualified to incorporated engineer level with adequate relevant experience and knowledge of the law, modes of practice, examination and inspection techniques and understanding of the effects of operation for the system concerned.
- Established access to basic design and plant operation advice, materials engineering and non-destructive testing (NDT) facilities.
- Sufficient organisation to ensure a reasonable document storage and retrieval system with ready access to relevant law, technical standards and codes.

"It is the responsibility of the user/owner of a cafeteria boiler to appoint a competent person who is capable of carrying out their duties in a proper manner.

"There is no legal requirement for competent persons to be approved or certified; however if there is an incident with respect to a pressure system the competent person would need to be able to demonstrate their competence to the enforcing authority. The vast majority of inspection bodies who act a competent person under PSSR subscribe to a voluntary scheme of accreditation which is carried out on behalf of Government by the United Kingdom Accreditation Service (UKAS). Accreditation is to international standard BS EN ISO 17020:2004 which sets the general criteria for various types of bodies who perform inspection. The standard sets requirements for independence, impartiality, integrity, confidentiality, personnel, facilities and equipment. There is also a requirement for accredited organisations to hold adequate professional indemnity cover. The voluntary scheme is seen by competent persons as a means of demonstrating their competence and by users/owners as a

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means of assurance that the body they have appointed will carry out their duties in a proper manner.

"All the leading independent inspection bodies are members of the Safety Assessment Federation (SAFed). This is a technical trade association which sets common technical standards amongst its members in order to promote a common approach to examination and testing requirements for pressure systems. It also serves as a means of sharing information with respect to problems and incidents with pressure systems.

"When a new cafeteria boiler goes into service for the first time it is required to have a written scheme of examination and also undergo initial examination. The main purpose of this initial examination is to confirm the boiler and its associated fittings and pipework are adequately designed and constructed to ensure that it will operate safely. The examination normally takes place under operating conditions and includes checks on the accompanying documentation and markings on the equipment. Cafeteria boilers that have been supplied in accordance with the European Pressure Equipment Directive (PED) give presumption of satisfying the design and construction requirements contained in regulations 4 and 5 of PSSR. However there are certain exceptions within PED that means some new cafeteria boilers do not need to comply with the directive. This could mean they need further assessment in order to demonstrate they satisfy the requirements of PSSR. Large independent inspection bodies not only have in depth expertise in-service examination of pressure systems but also extensive knowledge of design and construction requirements for new pressure systems. This enables them to make judgments as to whether a new cafeteria boiler satisfies the requirements of PSSR and is safe for service."

By coincidence, another engineer also took an opinion from this same insurance company. This said much the same as the above, but did make the interesting additional comment:

"The written scheme of examination can be written and certified as suitable either by an independent competent person or by the in-house competent person. For either function, the criteria for competent persons should be met. Where the appropriate technical expertise exists in-house, the written scheme may be drawn up by the user of the system and certified as suitable by a competent individual within their own organisation provided they fulfil the requirements for a competent person. Alternatively, there may be sufficient in-house expertise to draw up the scheme but not certification, in which case the user should employ an independent competent person to carry out the certification."

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This suggests that a 'competent person' could actually be an employee of the caterer who uses the espresso machine - but only if they fulfil the same criteria as an independent inspector.

In the first paragraph of the first statement from the insurance company, we see also the comment that: 'any equipment that contains steam, regardless of its pressure, has to be treated as a pressure system. Hence all cafeteria-type boilers used at a place of work are therefore pressure systems'. This could be taken to complicate the matter even further, and involve water boilers other than espresso machines.

"There are a whole clutter of products that should be pressure-tested, according to the insurance regulations, particularly domestic boilers and coffee machines, and domestic pressure boilers, but which lie below the radar.

"I would guess that most small coffee companies do not bother."

A very well-known manufacturer of what are usually known as 'water boilers' has responded to this by saying that there is an important distinction:

"Our 'pressure boilers' nearly all undergo pressure vessel examination every year. However we sell very few pressure boilers nowadays, virtually none in the UK, the main reason being that the examination costs, and the hassle associated with the inspection, usually result in clients deciding to purchase 'atmospheric boilers', which are vented to the atmosphere, and have a maximum temperature of approx 97c.

"There are a whole clutter of products that should be pressure-tested, according to the insurance regulations, particularly domestic boilers and coffee machines, and domestic pressure boilers, but which lie below the radar. I would guess that most small coffee companies do not bother."

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Broad conclusions:

It is clear that the situation is not clear. As the governing bodies are not providing specific guidance on the subject, this leaves both the operators/owners of espresso equipment and the service providers in a precarious position.

1. Nobody has as yet accepted responsibility for ruling as to who can be a 'competent person'. The authorities are simply quoting regulation numbers and references, and while they may arguably be correct in what they say, their comments are incomprehensible to the everyday small business owner. They have failed to express any opinion, decision or ruling in crystal-clear language.

2. Most people appear to be broadly agreed that ideally, a 'competent person' is not the normal engineer. There is however a minority of opinion which believes that the engineer who regularly works on a given espresso machine is permitted to inspect and certify that machine. This needs to be clarified.

3. It appears to be agreed that an espresso machine does not have to be inspected every year, in the sense of 'every twelve months'. In theory, it could be any period of time, and could be set by an inspector in accordance with regard to a particular machine.

One of the extremely experienced espresso companies referred to early in this document has said: "I seem to recall reading somewhere that as espresso boilers are subject to 'choking' (for you and I, this means lime-scale) and that 14 months is the recommended inspection frequency." Other engineers who work on extremely hard-working machines (such as those in extremely high-footfall businesses) report that they know of inspections being carried out at much shorter intervals.

It is possible that this matter should be either clarified, or considered by the regulating authorities, who might decide that the ideal period is based on usage, and not on the calendar.

4. The statement from the insurance company appears to include the matter of 'conventional' water boilers other than espresso machines. If this is true, the matter widens to an almost unimaginable extent.

As the governing bodies are not providing specific guidance on the subject, this leaves both the operators/owners of espresso equipment and the service providers in a precarious position.

The Conclusion: what the Coffee Council says

The Coffee Council calls upon authorities who have an interest in this matter to work together to give unequivocal and clear guidance, and to do so without difficult and obscure references to documentation. The everyday caterer cannot be reasonably expected to chase down and understand every tiny bit of legislation and regulation. Therefore, the Coffee Council calls upon all interested parties – at the very least, the regulatory authorities, the insurance industry, and the suppliers of espresso machines – to present the requirements for espresso machine testing in clear and unmis-takeable language.

The Coffee Council invites the regulatory authorities to rule whether someone who regularly services and maintains an espresso machine for a caterer, can also be the 'competent person', and that one ruling should be expressed simply and clearly, and agreed by the HSE, SAFed, and UKAS.

The Coffee Council invites the insurance profession not to wait for that ruling, but to say immediately, specifically, and in crystal-clear language, whether insurers currently consider that someone who regularly services and main-tains an espresso machine for a caterer, can also be the 'competent person'.

As very little research on the espresso sector exists, and nobody really knows how many machines are out in the field, the Coffee Council invites the trade to work together on the possibility of some research to establish the number of pressure vessels in use in the catering trade, and to work together on pub-licity to establish awareness of this issue.

The Coffee Council urges great caution on the part of both catering operators and the engineering trade. All catering operators using an espresso machine might consider it wise to consult their equipment supplier and their insurers to establish where they currently stand. Until the matter has been clarified, and a specific directive has been received from the author-ities, engineers might consider it unsafe to act as both engineer and as the certifying 'competent person'.

Disclaimer.

This document attempts to high-light a situation believed to be of importance to the catering trade, with the view of encouraging those who serve hot drinks to consider the safety issues involved in their business or employment, and with the intention of encouraging members of the catering trade to consider their own policies and practices for the safe handling of hot drinks - and to consider the implications of not doing so.

The Coffee Council will enter into no legal proceedings on this subject. The Coffee Council will, however, always welcome constructive discussion on the relevant practices of the catering trade.

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