

THE X FACTOR

Jason Wakefield reveals the benefits to streamlining X-ray scanner compliance

When choosing a preventive maintenance contract for your X-ray scanner it's easy to just sign up with the system manufacturer without too much thought. The time and effort invested into choosing the equipment in the first place was demanding, so why bother putting more time into something that seems – on the surface – less important? Although the manufacturer is there at the point of sale, it is worth doing your due diligence, as choosing the right solution can ease your administrative burden and, more importantly, prolong the life of your equipment. This article discusses some key considerations when selecting your maintenance contract. It sounds like a straightforward topic, but selecting the right provider initially – or transitioning when a better solution is found – can help to streamline X-ray scanner compliance and maintenance, saving you money and time in the long run.

Mitigating the risks to staff and property is paramount in today's international business environment. X-ray scanners of all specifications and sizes – from vehicle scanners through to portable systems and everything in between – play a fundamental role in both public and private security. High throughput applications can take their toll on the equipment and lead to a reduction in performance. That's why stringent safety tests are implemented – not only in manufacturing, but also during ongoing preventive maintenance – to ensure every scanner conforms with regulations and poses no risk to people in their proximity.

The Ionising Radiations Regulations 2017 (IRR17) was established to protect members of staff and the general public against ionising radiation in workplaces. IRR17 applies to a variety of sectors where radioactive substances and electrical equipment that emit radiation are used. These regulations stipulate any such control, feature or device is effectively maintained via thorough examinations and testing at suitable intervals. This ongoing maintenance ensures radiation levels are safe and that the equipment continues to meet the design requirements, operational limits and condition of operation throughout its lifetime. Mandatory preventive maintenance is therefore vital, not only to comply with these strict – and necessary –

regulations, but also for continuous peace of mind that the equipment is safe to use and performing its threat detection function optimally.

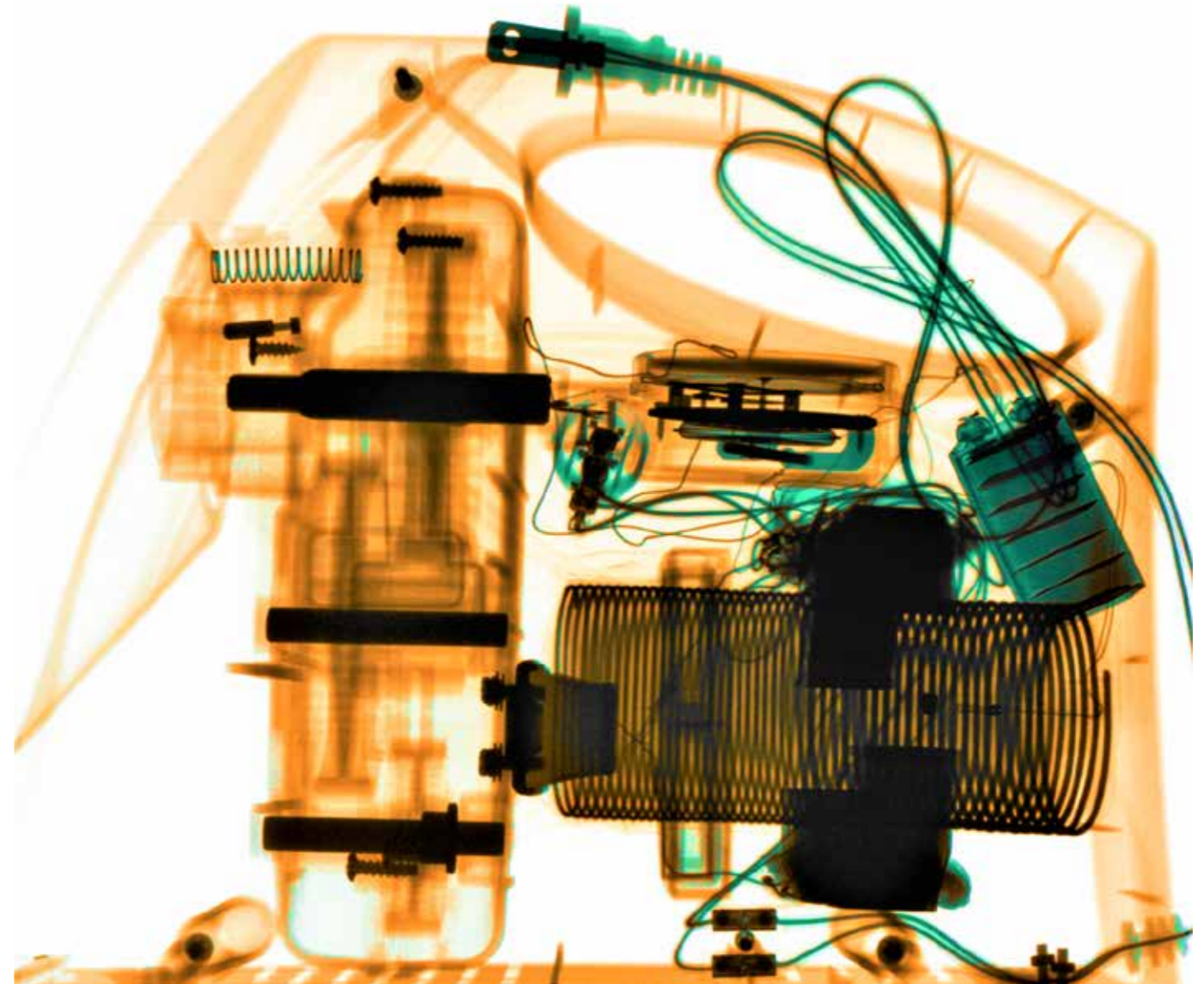
Conforming to these regulations doesn't have to be an arduous task. Of course, if you have multiple sites with different managers and a range of equipment from various companies, it can be a time-consuming, administration-heavy activity. A comprehensive preventive maintenance contract can help streamline the upkeep of equipment within your organisation – whether that's in the UK, Europe or globally – to remove this headache. Bringing together maintenance of various X-ray systems under a single contract ensures a single point of contact, with one invoice and a sole renewal date, removing the disjointed calamity of multi-site administration of numerous individual contracts.

CHOOSING THE RIGHT X-RAY SOLUTION CAN HELP TO PROLONG THE LIFE OF YOUR EQUIPMENT

Needless to say, this is only possible with a company that can handle any make and model of X-ray equipment. You should therefore look for a provider with a team of highly trained, experienced engineers that can service X-ray scanners irrespective of their brand. This will provide a company with a comprehensive solution to its X-ray scanner compliance strategy, streamlining services and administration to ensure every instrument is maintained to a safe and functional standard.

X-ray scanners are a vital tool against terrorist threats across a range of applications. Therefore, unexpected equipment downtime can open up a window of risk for companies, personnel and the public. A maintenance service contract can virtually eliminate unforeseen maintenance visits by following a planned service schedule, maximising uptime in a predictable fashion.

Preventative maintenance can also prolong the life of these sophisticated devices by keeping them running more efficiently and effectively. IRR17 requires every X-ray scanner to be serviced and checked for faults



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and radiation leaks once a year. Yet going beyond what is mandated by the legislation can help you extend the life of your instrument even more, ultimately saving you money in the long run. Having an engineer examine your X-ray scanner every six months, for example, keeps it healthier, and gives you unabating confidence that the equipment is safe and functioning as it should.

More frequent contact with engineers and highly trained professionals can also add value in other ways. Staff competencies, including information sharing and training, is included in the IRR17, yet it is often overlooked. There's no point in having a cutting-edge X-ray scanner if users aren't adequately trained on how to operate it to its full potential or if a staff member has been working in another department for an extended period and forgotten their initial training. A refresher course during routine service visits is often included in contracts, helping to ensure continued user compliance. This can include issues to look out for, tips to maximise the machine's potential and how to use enhancement tools to get the best images. Refresher training is especially important as industries emerge from the COVID-19 pandemic, where equipment may have sat idle and users may be out of practice.

Some maintenance providers also offer additional courses as part of a contract, and these can add tremendous value, upskilling staff to help companies simplify

compliance or heighten security. This might include training a 'Radiation Protection Supervisor', who can then be tasked with addressing practical measures for protecting operators, other staff and the public. Suspect package training is also valuable for educating staff about the latest terrorist threats to incoming mail and front-of-house operations, helping operators to recognise suspect packages and address risk management strategies. Regular contact with trained professionals via a service contract can keep you up to date with the latest courses, helping your staff stay safe and get the most out of the instrument and your investment.

Both the importance of these instruments to security and the potential health risks they pose if not used and maintained correctly mean that servicing requirements are not taken lightly by the industry and regulators.

Routine preventative maintenance must be conducted by suitably qualified and experienced personnel, who investigate if a machine is running correctly and safely, and identify any potential issues that may need attention before becoming a safety concern. One element of a service is to check radiation levels in key areas with a dosimeter to ensure that there is no leakage. This data, along with all other information generated during a service, must be meticulously recorded to generate a certificate of conformity. Even dosimeters used

for system testing are heavily regulated, requiring a complete track record of each device's identity, service history and last calibration to be included in the report. This ensures accurate readings and a service that operators can trust.

HEALTH CHECK

The rest of a proactive maintenance service is a 'health check' on the machine's working parameters and safety systems, to certify it will continue to run smoothly. As X-ray scanners generate a lot of heat, there are various filters that need consistently cleaning or changing to prevent potentially dangerous overheating. Engineers should also check the condition of the lead panels and

curtains designed to prevent radiation leakage. These proactive measures ensure it is operating as it should, in a safe manner, until the next service and for its lifetime.

X-ray scanners are designed to be in constant use and in high traffic environments where they are commonly found – such as in an airport – it is vital that they are maintained to the highest operational and safety standards. Establishing a maintenance partnership with a trusted provider can guarantee just this, and help you to eliminate any unexpected downtime. For organisations with multiple systems or sites, choosing a company that can look after all your instruments – irrespective of their make or model – can not only alleviate your administrative burden, but also provide a heightened level of service and support ●

KEY POINTS TO REMEMBER

X-ray scanners are strictly regulated according to the IRR17, which is in place to protect personnel and the public from the potential dangers of such equipment. Frequent preventative maintenance is therefore needed to conform to these regulations, ensure safety and protect your substantial hardware investment.

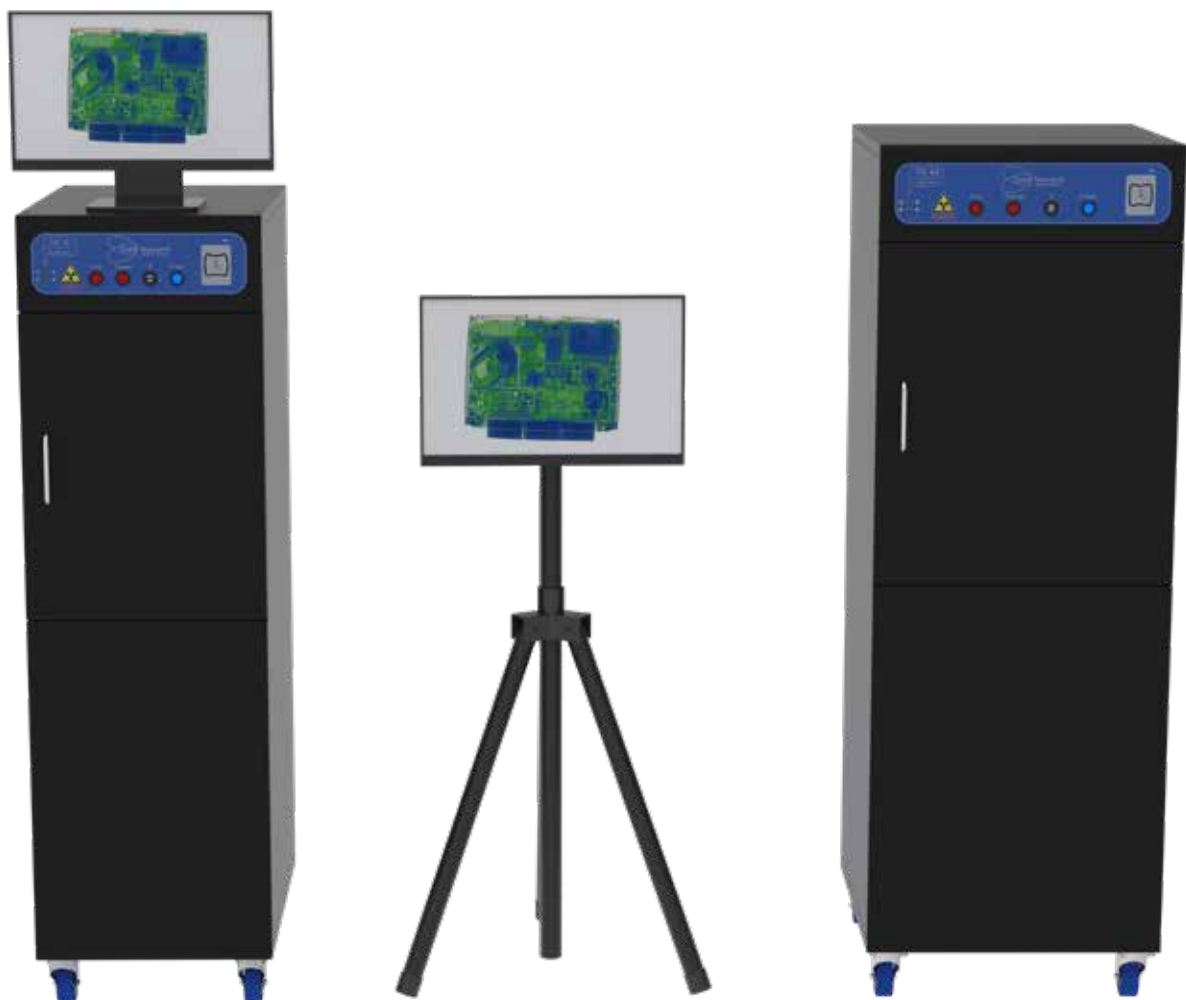
A preventative maintenance contract can help you perform the necessary due diligence to fulfil IRR17 requirements and guarantee you do everything in your power to operate a safe and reliable machine. A contract can also save you time and money by streamlining your administrative tasks, especially if you run a range of assorted X-ray scanners on multiple sites, potentially with different managers.

Looking for a single company with experienced engineers – who know the particularities of a diverse selection of makes and models – can remove the nuisance of X-ray scanner compliance.

Some maintenance companies include additional training courses in their contracts or offer them as an additional service. This can help your staff stay up to date with the X-ray scanners they operate, ensuring that they get the most out of the equipment, improving operability and further enhancing safety.

Jason Wakefield is the Sales Director at Todd Research, and has been with the company for 10 years.

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Picture credit: Todd Research