



How BSI has helped Avon Protection achieve CE marking approvals for its world-leading respiratory protection equipment

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Roy Grunwell,
Certifications Manager EMEA,
Avon Protection

At a glance

Avon Protection is famous for military gas masks. It is a world leader in the design and manufacture of respiratory protection for chemical, biological, radiological and nuclear (CBRN), toxic industrial chemicals (TICs), and toxic industrial materials (TIMs) applications. It maintains a market-leading position globally by investing in design innovations to protect elite end-users in high-risk occupations.

In the UK, Avon Protection employs around 200 staff. BSI has assisted the company by successfully facilitating its approvals for CE marking through type-examination of its highly specialized products.

Benefits of BSI approvals for CE marking

- Shows independent verification that a product meets specific standards
- Demonstrates commitment to regulatory compliance and good practice
- Reduces risks for new and existing customers
- Reassures end-users
- Strengthens brand credentials
- Eases entry into new markets
- Provides a competitive edge

Customer background

Avon Protection is part of the Avon Rubber Plc group of companies, founded in 1885 and headquartered in Melksham in Wiltshire. Avon Protection's heritage is in the manufacture of products from rubber, and today the company operates at several locations around the world. It has evolved to become a global leader in respiratory protective equipment (RPE) and has developed a unique capability in CBRN protection, based on a range of advanced technologies in respirator design, filtration and compressed air breathing apparatus.

Avon has been supplying RPE solutions to the UK Ministry of Defence (MoD) and other NATO allies since the 1920s and is the primary supplier of CBRN respiratory equipment to the US Department of Defense, including US Army, Navy, Marines, Air Force and Special Operations forces. Now, it not only provides complete RPE solutions for air, land and sea-based personnel in the military, but also for law enforcement bodies, firefighters, first responder organizations, and industrial sectors globally.

Why CE marking?

Manufacturers in the EU and importers of goods into the EU are obliged to CE mark a wide variety of products. The successful achievement of a CE mark on a product represents an assurance from the manufacturer (or importer) that the product meets the requirements of relevant EU Directives or Regulations.

The main purpose of CE marking is to provide a 'level playing field' of regulatory requirements across the European Economic Area (EEA), removing barriers to trade and allowing companies free access to markets in all the different countries of the EEA without having to meet widely varying local requirements.

Roy Grunwell, Avon's Certifications Manager for EMEA, explains, "In around 2003 we developed our first mask and filter for the non-military market, but in order to sell these products within the EU we had to comply with the EU's PPE Directive by gaining CE marking approvals for them."

Since then, Avon has expanded its portfolio of innovative, high-performance products considerably, to include escape devices, full face masks, powered air systems, self-contained breathing apparatus, and a full range of filters and accessories to provide maximum operational flexibility for users facing a range of changing

threats. "We want to sell all of them into the EEA, so all of them must have CE marking," says Grunwell.

He adds that, as well as being required in Europe, CE marking of Avon's PPE solutions is also essential globally, where it fulfills a number of national regulatory requirements.

The certification challenge

In adapting its products from being made purely for military and law enforcement uses (for which Avon is always given detailed technical specifications by customers such as the MoD) to new civilian uses, the company has had to ensure they meet very different standards. To carry a CE mark, its products must fulfill both 'Protection' requirements and 'Administrative' requirements.

The Protection requirements relate to the design of the product and can be demonstrated by compliance with the relevant harmonized standards. The Administrative requirements generally involve the manufacturer in producing a Declaration of Conformity and a Technical File containing design and manufacturing information, as well as information on the application of the CE mark to the product.

"Our products became bound by standards that were not part of their original military specification," says Grunwell. "And that specification did not necessarily translate easily to, say, an 'EN' or 'BS' standard that could be used for the harmonized structure of CE marking."

Without major changes, Avon's products would not have met the certification challenge for CE marking – and this is where BSI was able to help.

BSI's role

Avon approached BSI through its industry body, the International Society for Respiratory Protection (ISRP), and a collaborative relationship was formed. "We had a clear idea of what we needed to achieve in terms of complying with the PPE Directive and, through the ISRP, BSI was able to help us get there," says Grunwell.

For example, a key issue for Avon was how its filter should be fixed to its masks, with the relevant European standard (EN 136) specifying the use of a 40mm thread – entirely different from the mask's current 'self-sealing' attachment method designed for speed in a battlefield situation.

Grunwell continues, "We knew we had to change some things, and we were able to do so, but being

able to draw on the expertise of BSI's specialists was invaluable, particularly their in-depth knowledge and experience of standards and the requirements of the CE marking regime."

Avon was also able to avoid making unnecessary alterations to other 'legacy' aspects of its military masks by, for example, "relying on clauses from other international standards or by using the technical specifications route to gain our approval," says Grunwell. "Obviously, at the time, we needed information about how best to go about it, and we had an excellent dialogue with BSI that was outside the testing and approval process."

Future confidence

Looking ahead, in common with many manufacturers operating in specialized sectors, Avon Protection is keen to expand into new international markets. Here, BSI-approved CE marking of its products is already making an impact, offering vital reassurance to prospects, customers and end-users.

"Countries that don't have their own national regulatory requirements view our CE mark as very important, because it's not just us verifying our own products, it's BSI – an independent, internationally-recognized organization – confirming that they meet a certain standard," says Grunwell.

"Recently, some Asian countries have started to require some sort of certification or approval on RPE products – and our CE mark gives them the comfort factor they're looking for. And while other markets aren't necessarily asking for certification at the moment, I expect this situation to change in future."

He concludes, "I'm in no doubt that we gain a competitive edge and boost sales through CE marking that's backed up by the global credibility of the BSI brand. We have such a good relationship with BSI. They're really helpful and it adds massive value to our business."