

Tough on TANKERS



Despite the Vehicle Certification Agency hardening its rigour on tanker inspection, testing and certification, the industry is developing vehicle improvements. Steve Banner reports

The VCA (Vehicle Certification Agency) is taking a much tougher line when it comes to ensuring tankers are correctly inspected, tested and certified. That's the news according to Andy Mair, head of engineering at the FTA (Freight Transport Association).

The move follows industry controversy over the appearance on UK roads of some 230 South African-built tanker trailers that had been incorrectly certified in their country of origin. The last of them were withdrawn from service at the end of 2015 after detailed examination by the DfT (Department for Transport), the Health and Safety Executive and VCA.

In the wake of the controversy, DfT reviewed and clarified the appointment conditions for tanker AIBs (authorised inspection bodies) - the FTA's Vehicle Inspection Service is among them - and introduced a database for tanker inspection certificates. "We've certainly seen a significant increase in the level of scrutiny applied by the VCA and UKAS [the UK Accreditation Service] when they carry out their annual assessments of our standards and procedures," reports Mair.

"We've carried out a full review of our procedures and invested in specialist equipment in order to ensure

we are meeting VCA's and UKAS's requirements," he continues. "The online database for inspection certificates is a positive move as it applies consistency across all the AIBs and provides a traceable trail for tanker certification."

Stepping back a minute, the point is that dangerous goods transported by road or rail within the UK must comply with the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009.

It implements the provisions of ADR, which denotes the European agreement governing the International Carriage of Dangerous Goods by Road, and the Transportable Pressure Equipment Directive. It also implements the provisions of RID, which denotes the cross-border transportation of dangerous goods on trains.

The regulations require that tanks and pressure vessels be inspected, tested and certified before they are first





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used and then periodically. Only AIBs appointed by the Secretary of State for Transport may undertake such tasks, and the VCA's Dangerous Goods Office is responsible for running the scheme that ensures they meet the standards.

These regulations apply to: tanks built for UK domestic use prior to 10 May 2004; tanks built to ADR/RID standards; and transportable pressure equipment.

The DfT, the VCA and AIBs have been working together to draft guidance to ensure that the inspection, testing and certification standard is applied uniformly. They have also been developing guidance on the service, repair and testing of tanker equipment. "This means there should be even closer harmonisation of the standards applied across the industry, with some areas of clarification included in the guidance for consistency," comments Mair.

Will the UK's departure from the European Union make any significant difference? Tony Brown, technical manager at the FPS (Federation of Petroleum Suppliers) rather doubts it.

"What Brexit will do, though, is give

the UK government more power over how the regulations are enforced without having to run back to Europe all the time," he remarks. For example, one area that needs greater clarification, he contends, is how frequently tanks should be tested for vapour tightness.

PROTOTYPE TECHNOLOGY

While the requirements of ADR limit the extent to which tanker design can be altered, that does not mean there is no scope for further development. Earlier this year, Hoyer Petrolog UK put a prototype six-compartment tri-axle petroleum tanker semi-trailer, built by Schrader of Germany, into service (above). It was the first to be run by a British fleet. With a net capacity of 43,000 litres and a tare weight, including its pump, of 5.45 tonnes, the Unitas 2020 has a ride height of just 3.9 metres.

Countersunk man-lids mean that no roll-over protection is necessary, says Hoyer, and the first compartment's run-off pipe is mounted internally so there is no risk of snagging as the tractor unit turns. The API cabinet, including drip

trays, and the chassis-mounted nearside and offside hose tubes are also fully enclosed, while shorter hoses have been fitted to allow for easier manual handling.

Also installed are newly-designed Emco Wheaton product grade indicator tumblers - identifying fuel present to prevent cross-contamination - with integrated foot valve control buttons. "Development of this prototype is the result of a close partnership with Schrader stretching back over a number of years," says Hoyer Petrolog UK operations director Allan Davison.

But this company is not alone. Re-engineering vehicles to make them lighter is a key aim of all tanker builders. Williams Tanker Services, for example, constructed an award-winning tri-axle semi-trailer, now at Inver Energy, that can carry up to 31,000 litres of heavy fuel oil - 2,000 more than before.

"Tanker makers are quite limited in what they can do, in terms of lightening, because if a vessel needs to be of a required thickness using a particular material, it has to be made that way," observes Stuart Blacoe, sales engineer at TCL Tanker Rental. And he adds that with the VCA in charge there's "very little wriggle room". That said, he adds: "There are measures you can take when it comes to the wheels, axles and suspension, for example. And you can make more use of GRP and plastics in some areas. But what it often comes down to is the old argument of cutting weight versus the cost of doing so."

Part of Turner Group's rental division, and UK service partner for Danish tanker builder VM Tarm, TCL has more than 250 tankers available for hire. It has also just acquired 26 more, worth £2 million, from Crossland Tankers. The newcomers range from 30,000-42,000 litres capacity and can carry water, waste, petroleum, milk, food and chemicals.

One area that still needs addressing, says FPS's Brown, is one that actually falls

outside ADR and its implementation. It concerns the difficulties that can ensue with multi-compartment tankers. He cites FPS members that use such vehicles to deliver products, including kerosene and red diesel. "Around 90-95% of them are fitted with a wet-line system, which means the single delivery hose is always full," explains Brown.

The problem arises when the delivery system switches from one product to another, simply because they may attract different duties, and HMRC (HM Revenue & Customs) will not permit them to be mixed. Tight metering means that the amount of one product ending up mixed with another is minute, says Brown, but HMRC has a zero-tolerance approach.

"Wet lines have been around for many years and it wasn't an issue in the past. But technology has moved on and very small amounts of product can be detected," Brown observes. However, washing out lines between deliveries would be impractical, while equipping



tankers with two sets of wet lines would add cost and weight.

Another approach could be to scrap multi-compartment vehicles and operate tankers dedicated to a single product. However, this could lead to some trucks

lying idle for months, depending on seasonal demand for the cargo they are designed to carry. "We've been discussing the situation with HMRC," he says. "We can only hope it will adopt a more pragmatic approach." **TE**

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