Going it alone

Erik Kowalewsky, of Cozen O'Connor, looks at California's bid to regulate fuel sulphur within its waters

On 24 July 2008, the California Air Resources Board (CARB) adopted regulations mandating that ocean-going cargo and passenger cruise vessels use low-sulphur marine distillate fuel within 24 nautical miles of the shore and prohibiting use of less-expensive heavy fuel oil, so-called bunker fuel. These new regulations are considered the strictest marine air pollution rules in the world.

The goal of the regulations is to improve California air quality, particularly along its coastline. The CARB expects compliance to cut the number of premature deaths by an estimated 3,600 state-wide between 2009 and 2015, while significantly reducing the risk of illnesses such as bronchitis and asthma.

At first glance, since the regulations govern shipping to and from only one state in the US – California – they may not seem of great concern industry-wide. A closer look reveals, however, that the regulations have an effect disproportionate to their limited geographic reach.

Together, the ports of Los Angeles and Long Beach are the fifth busiest container ports in the world, through which pass upwards of US$200bn of cargo and 1.2m cruise passengers annually. Further, the port of Oakland is the nation's fourth busiest container port.

The three ports combined handle 50% of the US container traffic and the lion's share of the nation's trade with large and growing Asian markets such as China. According to the CARB, around 2,000 vessels will be subject to the regulations annually. Here is a look at the history and details of the new rules and the effect on the shipping industry.

Regulations revisited

Until now, most vessels have used bunker fuel in their engines and boilers for a voyage's entire length. Bunker fuel is the residual product of crude oil after gasoline and distillate fuel oils such as diesel are extracted by refining.

While it is the least expensive option, bunker fuel can contain 3 to 4% sulphur and is highly polluting when burned, emitting large amounts of particulate matter including heavy metals, sulphur and nitrogen oxides.

The CARB has linked these pollutants to diverse health problems, including cancer, cardiovascular and respiratory diseases. They also generate smog, with other adverse environmental effects (though the CARB itself notes that burning cleaner fuel may increase greenhouse gas emissions, due to increased energy required to refine it).

In California, pollution issues are exacerbated because the volume of shipping into and out of the state strains its ports' capacity. At the port of Los Angeles, for instance, unloading cargo is commonly delayed, resulting in vessels burning bunker fuel for extended periods as they idle dockside.

As a first attempt to address the pollution issue, in 2005 the CARB promulgated the Auxiliary Engine Regulation (AER) emissions standards, which were in effect January 2007 to May 2008, for certain engines operated by ocean-going vessels.

The US Court of Appeals for the Ninth Circuit upheld a challenge to the AER by the Pacific Merchant Shipping Association

This article originally appeared in the September 2008 issue of Maritime Risk International, published by Informa Law. To subscribe, or for more information, please contact Gemma Bosworth, +44 (20) 701 75945, gemma.bosworth@informa.com

(PMSA), an organisation representing some 60 international shipping companies. The court held that the AER was pre-empted by the federal Clean Air Act.

The fuel sulphur regulations recently adopted are the CARB's attempt to achieve the same goals by means that are not, in its view, pre-empted. The new regulations do not set a limit on emissions which result from vessel operation, but are instead couched in terms of operational requirements specifying the type of fuel vessels must use.

The regulations are transparently intended to prompt the US Environmental Protection Agency (EPA), or United Nations International Maritime Organization (IMO), to adopt uniform and strict rules requiring use of cleaner fuels. However, current proposals before the IMO would take effect in 2015 at the earliest, in CARB's view too far in the future to protect Californians.

Recognising the regulations' stop-gap nature, lawmakers included a "sunset provision," whereby the rules will cease to be in effect if the EPA or IMO adopts uniform standards achieving the same benefits.

The new requirements

The fuel sulphur regulations provide detailed requirements for ocean-going vessels' operators with respect to the fuel they must use and the geographic boundaries in which they must use it.

As defined, 'ocean-going vessel' is intended to encompass large cargo and passenger cruise vessels, whether US or foreign-flagged.

The geographic scope of the regulations includes all inland waters and extends out 24 nautical miles from the California 'baseline'. The baseline is the boundary line, determined by the federal government, which divides the land and inland waters from the ocean.

Once fully implemented, all vessels subject to the regulation must use low-sulphur marine distillate fuels in auxiliary engines, diesel-electric engines, main propulsion diesel engines and auxiliary boilers. By extension, this precludes bunker fuel use.

Vessel operators are also required to maintain detailed records of the date, time and place of entry into regulated waters and switching of fuels to comply with regulation, including fuel type used within regulated waters and its sulphur content.

The regulations come into effect in two phases:

(i) Phase one requires that, upon approval of the regulations, vessel operators use either marine gas oil (MGO), with a maximum of 1.5% sulphur, or marine diesel oil (MDO), with a sulphur limit of 0.5%, in auxiliary and diesel-electric engines. The phase one requirements include main propulsion engines and auxiliary boilers as of 1 July 2009.

(ii) Phase two requires all of the above engines and boilers to be fuelled with either MGO or MDO having a sulphur content of 0.1% or less.

Penalties and exemptions

Vessel operators found in non-compliance and not entitled to an exemption face penalties under California's Health & Safety Code and other applicable law. These include substantial monetary fines, enforceable by a lien against the offending vessel.

Operators can also face potential imprisonment for more serious non-compliance. Since the regulations provide that every hour of non-compliance in regulated waters is a separate violation the penalties could be quite severe.

Perhaps the widest exemption to the regulations is for vessels in 'innocent passage' – those travelling without stopping or anchoring within Californian waters. Military and government vessels are also exempt from compliance, as are vessels using approved alternative fuels or evaluating new emissions technologies. Neither must a vessel comply with the rules if the operator can show that compliance would endanger the vessel, crew, cargo or passengers.

In certain circumstances, an exemption is authorised where the vessel operator notifies the appropriate authorities and pays a non-compliance fee of $40,500 per port call, up to a maximum of $227,500 for five or more port calls.

This is available if a vessel makes a port call in California due to an unplanned redirection, lack of fuel or inadvertent purchase of non-compliant fuel. The fee may also be paid if a vessel requires modifications to accept compliant fuel and it is either scheduled to be taken out of service for the modifications or will make limited voyages to California after the regulations become effective (to a maximum of four in the vessel's lifetime).

Effect on the industry

The CARB takes the position that the economic impact of the regulations on vessel owners will not be significant. It projects the present value of the increase in fuel costs to vessel operators to be $1.5bn between 2009 and the end of 2014.

But, it notes that this adds only around 0.5% to the cost of a typical trans-Pacific container vessel voyage and 3% to 4% to a typical passenger cruise. In the CARB's view, since most vessels are set up to handle marine distillate fuels, the capital costs involving compliance are expected to be nominal.

The PMSA, the industry group successfully opposing the AER, has publicly endorsed eventual international standards for ship emissions. But, it apparently does not agree that the economic effect of the California regulations on its members is insignificant, since it is on record as planning to challenge them in court.

The PMSA is expected to argue, among other things, that California does not have authority to regulate activity in waters more than three nautical miles offshore. Outside this boundary, it could be argued that the federal Submerged Lands Act pre-empts state regulation. This issue was litigated but never decided in the AER challenge.

Whatever the fate of the new regulations, it is clear that California will continue to regulate in an attempt to achieve substantial reductions in emissions from ocean-going vessels and will do so until the implementation of as-stringent federal or international standards.

It is also clear that the shipping industry intends to challenge any future regulations until federal or international standards are in place. In the meantime, carriers coming into port in California are advised to comply with the rules.

Perhaps more important, the industry should keep a watchful eye on the development of uniform international standards, which appear all but inevitable. ■

ERIK KOWALEWSKY

Erik Kowalewsky is a member of law firm Cozen O'Connor's London office.

This article originally appeared in the September 2008 issue of Maritime Risk International, published by Informa Law. To subscribe, or for more information, please contact Gemma Bosworth, +44 (20) 701 75945, gemma.bosworth@informa.com