

# Transport Topics

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Food Standards, Emission Regulations Affect Load Flexibility for Refrigerated Fleets



*C.R. England*

It's a different world for refrigerated carriers these days.

The nationwide growth in demand for fresher foods has contributed to a boom in the refrigerated transportation sector. But tighter food-handling standards and emission regulations are limiting the load flexibility and utilization options that carriers may have had in the past while driving significantly higher equipment and operating costs.

The challenge refrigerated carriers face, industry executives said, is to use the newer trailers and technologies available today to maximize utilization and load flexibility within the constraints of the cold chain and emission regulations.

“The need for temperature-control transportation is a growing trend in the United States,” said Mark Domzalski, senior vice president of sales and operations with Newark, N.J.-based PLM Trailer Leasing. Legislation and activities involving the Food Safety Modernization Act “are requiring more stringent measures of control for the transport of food across the U.S.”

The 2016 FSMA rules on the sanitary transportation of human and animal food put greater responsibility on all participants to monitor, record and ensure that temperatures throughout the supply chain are maintained as required.

The FSMA “has amped up the food-handling requirements so fleets have to make sure that the product is kept at proper temperatures,” said Craig Bennett, senior vice president of sales and marketing for Utility Trailers. “It becomes particularly challenging with food service, with roll-up doors and the driver in and out of the trailer 30 to 40 times day.”

“It’s important that the system be able to recover the interior temperature from the ambient temperature quickly,” Bennett added.

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Mark Domzalski, PLM Trailer Leasing

A carrier can be vulnerable to having loads rejected if the receiver has doubts that the load was handled properly, said Paul Schlegel, executive vice president at Omaha, Neb.-based Roadrunner Temperature Controlled. “There is a lot more oversight about whether a product is damaged or tainted than in the past. A customer may say he won’t allow you to haul this load if he sees residue inside of the trailer. That means trailer washouts have become very critical.”

Related to that, Great Dane Trailers announced in March that it would add an antimicrobial protection as a standard offering on reefer liners used in its Everest trailers. The antimicrobial protection, from Microban International, will help provide protection against bacteria growth, the company said in a release.

Great Dane didn’t respond to requests for comment for this story.

Meanwhile, today, the term “load flexibility” for a refrigerated fleet can just as likely refer to a fleet’s ability to operate in California.

The California Air Resources Board’s transport refrigeration unit (TRU) regulations, a set of diesel emission standards for refrigeration-unit engines, have been the greatest challenge to load flexibility and utilization, industry executives said. The regulations phase in low-emission and ultra-low-emission TRUs annually. A carrier cannot run a refrigerated trailer in the state if it doesn’t meet CARB’s emission levels for a particular model year.

“Since so much volume moves into and out of California, those regulations have become the de facto standard nationwide,” said Frank Maly Jr., director of commercial vehicle transportation analysis and research at ACT Research Co.

A reefer fleet with CARB-compliant and non-CARB-compliant trailers must carefully manage its trailers to ensure it’s not loading goods that are going to CARB areas in non-CARB trailers, Roadrunner’s Schlegel said. In some cases, that may require cycling out the entire trailer fleet.

“Roadrunner is investing in new equipment because we can’t always guarantee a trailer will end up where we need CARB-compliant trailers,” Schlegel said. “Otherwise, from a trailer utilization



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standpoint, you're deadheading around with equipment. It can create huge inefficiencies in the overall network."

C.R. England, which has about 5,300 refrigerated trailers, has accelerated its replacement cycle and also is turning over its entire refrigerated fleet to ensure CARB compliance, said Ron Hall, vice president of equipment and sales.

"We've shortened [replacement cycle] to five years to get ahead of the 2019 CARB standard," he said. "Rather than try to keep non-CARB trailers out of California, we decided to accelerate the trade schedule so that we wouldn't have any [not in compliance] by the time the rule came in."

Salt-Lake City-based [C.R. England ranks No. 26 on the Transport Topics Top 100 list of for-hire carriers in North America.](#)

Replacing a reefer trailer today comes at a hefty price. Hall said prices have increased 20-30% during the past 10 years as manufacturers have responded to new emission and fuel-economy regulations.

"That puts more sensitivity into the utilization equation and expectations placed on customers to keep the equipment moving, as well as expectations on the carrier to keep trailers from breaking down," Hall said.

Another fleet executive, who asked not to be identified, said reefer trailers are costing his company between \$65,000 and \$75,000 apiece.

At the same time, there is justification for investing in new equipment because older trailers may not operate as well as newer ones, or as efficiently, Schlegel said. "You run the risk of the product being called tainted or damaged and end up with huge cargo claims."

As for telematics, its usage on refrigerated trailers has spiked over the past three years as fleets have upgraded systems to comply with the FSMA regulations, PLM Trailer Leasing's Domzalski said. "In 2016, almost 90% of our new orders have some sort of telematics attached."

Customers are using the systems not only to locate the units but also to check and change temperatures remotely and transmit fuel levels as well as any fault codes or reefer failures, Domzalski said.



Each of C.R. England's refrigerated trailers has GPS connected with an Orbcomm RT 6000 communication package.

"We have a reefer-monitoring workbench where we can solve issues, such as wrong set points for bill of lading or if the return air temperature

doesn't match set point, or the fuel level is critically low," Hall said.

Sharp Transportation, based in Wellsville, Utah, runs about 30 reefers nationwide, and the integration of a Spireon telematics package with McLeod management software gives Kevin Boydston, the operations manager, a single portal through which he can see the condition of each reefer.

"I can, at a glance, see what my trailer pool actually looks like," he said. "With the full integration, we're not having to slip back and forth with different websites to get the information we need."

And Thermo King, which makes transport temperature-control systems, has added an in-house communication platform, TracKing, as an option on its refrigeration units, said Gayatri Abbott, connected solutions product manager. "With FSMA compliance, the fleet must have certain capabilities to monitor the system.

Carriers also want traceability so they can respond quickly for customers who have stringent expectations for service, she added.

Another challenge associated with getting the best usage out of the trailer is making sure the equipment is earning money and not sitting unused somewhere.

Hall said C.R. England's onboard telematics and monitoring package measures the days since a trailer's assignment or since miles were traveled.

"We track how long since it's been moved. We shoot for three loads per trailer per week once it's spotted. If we drop a trailer at a customer's facility, our expectation is that it will have three loads per week."

The utilization rate begins dropping when customers keep the trailer longer. C.R. England begins flagging the trailer if it hasn't moved in four days and steps up the focus after seven days of inactivity.

Overall, the growth in demand for fresher food has helped give a boost to the refrigerated transportation sector. But ultimately, fleet managers said they must use all the available tools if they are to get maximum use out of the equipment.

<http://www.ttnews.com/articles/food-standards-emission-regulations-affect-load-flexibility-refrigerated-fleets>