Fourth railway package disappoints freight interests

The European Commission’s Fourth Railway Package, launched on 30 January, met with mixed reaction among trade bodies representing rail freight users and operators.

CLECAT, which groups European freight forwarders, welcomed the publication of the package but said it was disappointment with the fact that the Commission has “backtracked from its initial intention to impose separation of the infrastructure management (IM) and railway operations”.

The new proposal allows incumbent operators to keep their holding structures, making separation “optional”, said Néoliette van der Jagt, director general of CLECAT. “The Commission has clearly considered the political ramifications of its proposals and settled for something which falls far shorter of what we were hoping for, namely, full unbundling in all cases.”

Van der Jagt added that the separation of the infrastructure manager from railway undertakings would have represented “the quickest and most efficient way of revitalising the industry and creating a level playing field between rail operators”. This is the model that also applies to other modes of transport where the provider of the services is totally independent from the public party that is in charge of the infrastructure.

However, CLECAT does “fully support” proposals to enhance powers for the European Railway Agency to establish a one-stop-shop approval process. Lengthy and costly procedures for approving railway rolling stock impedes the creation of a single European railway area and adds “unacceptable additional costs” for operators. A one-stop-shop type approval of rolling stock certified across the single railway area is needed, CLECAT insists.

“We will study the Commission’s proposals in more detail, but, for us, making the railway sector more efficient through enhanced competition and quality is key,” van der Jagt concluded.

The European Rail Freight Association (ERFA) talked of “frustration” when it compared the published proposal with a draft that was circulating barely a week before which provided for total unbundling of infrastructure management and operators, the latter chiefly meaning the state-owned incumbents like France’s SNCF and Germany’s Deutsche Bahn (DB).

The French government controversially declared in November that it was to re-group SNCF and rail infrastructure manager RFF within a single holding company. In the run-up to the publication of the fourth package, transport minister Frédéric Cuvillier said separation between the two was “not necessary” and that France would do everything to ensure the “impartial functioning of infrastructure management”.

The strongest criticism came from Tony Berkeley, chairman of the UK Rail Freight Group (RFG). He accused DB of effectively rewriting the Package. “The package illustrates the extent to which the original and excellent draft setting up a fully liberalised and competitive railway structure compliant with the principles of the internal market has been turned in the space of less than a month by the intervention of German Chancellor Angela Merkel into a German Railway Package for Europe, a ‘Europäische Weltrailsbahn’.”

“Merkel’s intervention, following the massive lobbying by Deutsche Bahn, forced the Commission to change its plans. This new package now allows the holding company model of the railway in Germany to be maintained; it permits hidden transfer of funds from the infrastructure manager via the holding company to the commercial activities of train operators, placing them in a competitive advantage over their competitors who do not benefit from such aid.”

“It allows for subsidised DB companies to buy operators in other member states, unfairly competing with other companies; by a failure to provide full separation between infrastructure managers and railway undertakings, it will allow confidential IT and other information, as well as funding, to flow undetected between these companies, again to the detriment of fair competition,” he stated.

The new text gives member states, where a separated model exists, the right to refuse operators from a holding company onto their network. For Lord Berkeley, however, it however fails to explain how such a complex procedure would work in practice.

“In Germany, the Commission’s infraction proceedings have already demonstrated wide ranging failures to comply even with existing law, particularly on the issue of hidden transfers of profits from IM to the holding company. In France, Germany’s partner in this monopolistic exercise, SNCF, in spite of being fined over €60 million for anti-competitive behaviour, it and the French government are hurrying towards the same integrated structure which is already seen by the Commission as illegal in other member states.”

“So here we have two of the largest member states already in breach of railway law, now having succeeded in getting the law changed so that they can carry on as they please.”

Lord Berkeley fears that the legislation will end up reducing the growth that rail could offer, deter potential investors “who fear that their investments will be threatened by a national monopolist” and lead to a situation across Europe where everybody puts more cars and trucks on the road.

“It is now up to the European Parliament and the Council (of Ministers) to alter, improve and complete this package and achieve the objectives which business, customers and the industry know is necessary to create the internal market, investment and efficiency that the rail sector needs so badly,” he concluded.
Controlling toxic dust

For many years various Australian authorities have been slowly installing water-fluoridation plants in a general effort to promote better dental health. In the past few years, though, the pace of fluoridation has quickened as various states have introduced fluoridation programmes, backed by state government subsidies.

Queensland, for example, decreed in 2006 that 90 percent of Queenslanders would have access to fluoridated water by 2012. ProMinent Fluid Controls Pty has supplied more than 60 fluoridation systems over the past 25 years. Many of the earlier installations were for rural water supplies in relatively small water treatment plants. Initially, 23kg bags of sodium silicofluoride powder Na2SiF6 were manually loaded into a hopper; later installations used a vacuum loader designed by ProMinent. A dry chemical feeder meters the Na2SiF6 into a mixing tank; the plants use up to 875 kg/d of Na2SiF6, which is toxic and subject to strict dust control, because the plants use up to 875 kg/d of Na2SiF6, which is toxic and subject to strict dust control, because the plants use up to 875 kg/d of Na2SiF6 per 100 mld of water. The cincher also helps to keep moisture out of the bag and can isolate it in the case of an emergency.

Promoting flow are Flow Flexer bag activators — two pneumatically driven plates that rhythmically raise and lower opposing bottom edges of the bag to direct material to the outlet. As the bag empties, the plate lengths, forming the bag into a steep V shape and promoting total evacuation. An adjustable timer controls the frequency of the strokes.

The dust collector is vented to a Bag-Vac dust collector that removes residual powder and collapses the empty bag prior to tie off, preventing dust generation when empty bags are flattened manually.

As mentioned earlier, a flexible screw conveyor transports the Na2SiF6 from the floor hopper to a storage hopper that feeds the mixing tank. The conveyor consists of a rotating, stainless steel spiral screw, housed in a 65mm dia polymer tube. The lower end of the roughly 5m long tube passes through the wall of the floor hopper, near the bottom, and the top end discharges the powder through a chute into the top of the storage hopper some 4.5m above the plant floor. As the screw rotates, it self-centres within the tube, providing ample clearance between the screw and the tube wall to prevent grinding of the product. A 4kW electric motor, located above the discharge point, rotates the screw at a variable rate up to 6,000rpm. The flexible screw conveyor is inherently enclosed throughout its length to avoid airborne dust.

As the bag’s contents empty into the floor hopper, the conveyor is activated. The transfer of powder to the storage hopper continues until either the transition hopper is empty or the weight of the storage hopper reaches a preset level, as indicated by four load cells underneath the hopper. The control system signals the conveyor to stop when the high level is reached.

From the storage hopper, a dry chemical feeder meters the fluoride powder into a mixing tank through a sealed unit that prevents the escape of dust. The flow of powder is automatically matched to the inflow of water to the tank in a ratio that results in a 0.2 percent Na2SiF6 saturated solution. The tank has a high-speed mixer and a retention time of 10 min.

Finally, the solution is carefully metered into the flowing water supply by a peristaltic pump (or a progressive cavity standby pump). The dosage rate varies from 0.6 mg/l to 1 mg/l, depending on local requirements.

In rare cases a water treatment plant may have two independent pipelines, each with its own dosing system. This situation occurs, for example, when a town or city has grown and added more treatment capacity.

These cases require separate storage hoppers and dosing systems for each pipeline. However, a single bulk bag discharger and one transition hopper can feed two storage hoppers by incorporating two separate flexible screw conveyors into the single common transition hopper. Feeding two storage hoppers is well within the capacity of the system. A single conveyor delivers material at a rate of around 5,200 kg/h, while the seven-day storage capacity of a large hopper is only about 8,750 kg.