

PFAS restriction proposal: a key concern for the European rail stakeholders

The following European rail stakeholders associations are signatories to this statement: Association of European Rail Rolling Stock Lessors (AERRL), Alliance of Passenger Rail New Entrants (ALLRAIL), Community of the European Railways and Infrastructure Companies (CER), European Rail Freight Association (ERFA), International Union of Wagon Keepers (UIP), International Union for Road-Rail Combined Transport (UIRR), International Association of Public Transport (UITP) and European Rail Supply Industry (UNIFE).



PFAS, a large class of thousands of synthetic chemicals

Per- and poly-fluoroalkyl substances (PFAS) are a family of artificial chemicals with 12,000 different substances. PFAS are used in many products and have various valuable properties: lubricant, water and dirt repellence, durability under extreme conditions (temperature, pressure, radiation, chemicals), electrical and thermal insulation, refrigerants etc. However, **PFAS have a high persistence associated with potential environmental and human health concerns**, thus the alternative name of “the forever chemicals”.

ECHA and the PFAS restriction proposal

For this reason, on 7 February 2023, the national authorities of Denmark, Germany, the Netherlands, Norway and Sweden submitted **a PFAS restriction proposal** to the **European Chemicals Agency (ECHA)**.

The proposed restriction on PFAS is set to be one of the largest ever on chemical substances in the EU. As a result, manufacturing, using and placing products containing PFAS on the EU market **will no longer be permitted by 2027-2030**. After this, **possible derogations might be granted for use-specific cases and a time-limited transition period (maximum until 2039-2042) without extension or renewal**. In addition, particular uses have been given time-unlimited derogations. Some PFASs are already restricted in the EU (PFOS, PFOA, C9-C14 PFCAs). This proposal does not affect these existing restrictions and ongoing decision-making for PFHxS and PFHxA restrictions.

PFAS are currently crucial for the European rail stakeholders

Besides some consumer products, PFAS are used in many industrial sectors, including the rail supply industry and its entire value chain. **Some PFAS are crucial for the rail supply industry** through their use in various applications - such as firefighting foam, refrigerant (F-gases), electronic components, batteries, fuel cells, hydraulic fluids, lubricants, sealings, plastics, textiles, adhesives, paints, etc.

The European railway stakeholders support efforts to restrict PFAS, which pose unacceptable risks to human health or the environment, such as perfluorooctanoic acid (PFOA). The European rail stakeholders are committed to continuously improving their products and services' environmental compatibility and safety.



However, the current PFAS restriction proposal would significantly impact the railway system. Failure to grant exemptions or derogations would mean an immediate (18 months after entry into force) and total ban of PFAS for crucial rail applications. As these applications are critical for various essential rail components and are also required for spare parts and maintenance activities, the ban would trigger a cascade of far-reaching consequences for the railway system.

Without some key PFAS, the rail sector would not be able to operate efficiently, which can lead to serious adverse effects on the daily lives of Europeans and the broader European economy. Such restrictions would necessitate a phased approach to adopt alternative technologies, starting with intensive research and development to bring non-existent or merely conceptual solutions to fruition, followed by prototyping, testing, and scaling up, each phase introducing additional costs and complexities. It would drastically reduce global competitiveness compared to non-EU competitors unaffected by the European PFAS restriction. It would also increase the cost of transitioning to more sustainable transport within the EU. This could hamper the crucial importance rail has to play in achieving the ambitious decarbonisation goals of the *Sustainable and Smart Mobility Strategy* and of the *EU Climate Law*.

The European rail stakeholders promote the following technical improvements to the PFAS restriction proposal for a balanced approach that simultaneously protects the environment and supports economic viability:

- **Review clauses** should provide sufficient time to identify and implement alternative non-PFAS solutions if such alternatives can be found.
 - **Risk-based and substance-based approaches** should be preferred for banning the most harmful PFAS instead of a universal restriction, regardless of their toxicity and risk profile.
 - As PFAS are currently **non-declarable substances**, the first step is to make them legally declarable.
 - **A longer transition period** should help develop durable and safe PFAS-free alternatives and verify and certify such options to fulfil all other applicable legislation.
 - A clearly defined **procedure for applying, reviewing, and extending derogations** should be determined.
 - The use of PFAS should **remain possible in use cases essential to society as long as there is no full-scale availability of suitable and technically developed substitutes**.
 - **The “repair-as-produced” principle should be applied**, with indefinite derogations for spare parts, refurbished parts, equipment, and products already placed on the market.
 - **Ensuring effective enforcement** through the market surveillance system should be central to guarantee a level playing field between competitors, especially from third parties non-affected by the PFAS restriction.
 - **The current list of derogations should be extended** to consider the relevance of PFAS for a wide range of non-replaceable and indispensable applications in the railway industry.
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The following table summarises the derogation requests.

Exemption*: as already covered by [*Regulation \(Eu\) 2024/... of the European Parliament and of the Council of 7 February 2024 on fluorinated greenhouse gases, amending Directive \(EU\) 2019/1937 and repealing Regulation \(EU\) No 517/2014 \(Text with EEA relevance\)*](#)

Main application as defined in Annex XV report proposal	Sub-uses as described in Annex XV report proposal	Examples of use	Request for confirmation of the proposed derogation as in the Annex XV report proposal (plus a review clause)	Request for derogations for missing uses and/or no possibility of modifying the existing application (plus a review clause)
Applications of fluorinated gases (F-gas)	Air conditioning and heat pumps	New HVAC	Missing use	Exemption*
		Existing HVAC	5.i (13.5 years after EiF)	Exemption*
		Existing HVAC with mechanical and hydraulic compressors	5.p (6.5 years after EiF)	Exemption*
	Fire suppressants	Automatic fire system	5.m (13.5 years after EiF)	Exemption*
	Refrigeration	Catering Battery Monitoring Systems	Missing use	Exemption*
		Climatic chamber	5.g (13.5 years after EiF)	Exemption*
Electronics & semiconductors	Coating, solvents, cleaning		Missing use	13.5 years after EiF
	Electronic components		Missing use	13.5 years after EiF
	Semiconductors		5.ee (13.5 years after EiF)	-
	Wires & cables	Motor Sheath - Heat shrinkable	Missing use	13.5 years after EiF
Energy sector	Batteries	Batteries	Missing use	13.5 years after EiF
	Proton exchange membrane (PEM) fuel cells	Fuel cells	6.e (6.5 years after EiF)	13.5 years after EiF as a minimum
Lubricants	Greases	Grease	5.s (13.5 years after EiF)	-
	Low viscosity lubricants	Oil	5.s (13.5 years after EiF)	-
Transport	Coating and finishings	Balljoint	6.o (13.5 years after EiF)	-
	Electrical engineering and information technology		6.o (13.5 years after EiF)	-
	Sliding and guiding elements	Sliding part - segment - guide - bearing	5.a (6.5 years after EiF) 6.o (13.5 years after EiF)	13.5 years after EiF
	Safety equipment (incl. fire prevention & protection)		6.o (13.5 years after EiF)	-
	Sealing applications	Transformer - bogie - motor - brake	6.o (13.5 years after EiF)	-
		Valves of tank wagons	Missing use	13.5 years after EiF as a minimum
		Valves, venting, membrane	5.e (6.5 years after EiF)	-
TULAC (Textile, upholstery, leather, apparel and carpets)	Technical textiles			