

Aug 25, 2023

Comment on Proposed Restriction of PFAS

Japan Valve Manufacturers' Association (JVMA)

Japan Valve Manufacturers Association (JVMA) appreciates the opportunity to provide comments to the PFAS restriction proposal.

1. Introduction

JVMA was established in 1954 and has been a representative association of Japanese valve industry for nearly seventy years. As of today, we are comprised of 115 majors domestic valve manufacturers including several Japanese subsidiaries of European valve makers and additional 68 associate companies. Since our establishment, we have implemented various effective programs to contribute to society, occasionally cooperating with some of Central Government Ministries and Agencies. Especially we are pouring the biggest effort to resolve environmental problems, so the Environmental Committee and four working groups in our organization are working on the following issues:

- Greenhouse gas reduction.
- Design for the environment of valves.
- Life cycle assessment of valves.
- Gathering information on restricted substances.
- Environmental education.

To response to the PFAS restriction proposal, we have prepared a technical and socioeconomic statement which is attached document.

2. Comment

Flexibility is a technical function offered by PTFE. Flexibility is required in the following categories of valves.

- Diaphragms of valves used for the supply and waste of high-temperature (200° C or higher) chemical solutions in the cleaning process of the semiconductor manufacturing category.
- Diaphragms of valves used in ultrapure water facility lines in semiconductor factories in the semiconductor manufacturing category.

- Valve diaphragms used for high-purity gas supply, high-purity chemical supply, and waste liquid in the semiconductor manufacturing category.
- Diaphragms of valves used in supply lines for liquid medicines and vaccines in the pharmaceutical manufacturing category.
- Diaphragms of valves used for transfer and storage of bioprocess liquids in the pharmaceutical manufacturing category.
- Diaphragms of valves used in manufacturing facilities for intermediates and active pharmaceutical ingredients in the pharmaceutical manufacturing category.
- Diaphragms of valves used for transfer of various process liquids in multi-plants in the pharmaceutical manufacturing category.
- Diaphragms of valves used in lines for PW, UPW purification and injections in the pharmaceutical manufacturing category.
- Diaphragms of valves used in CIP cleaning equipment and cleaning liquid lines in the pharmaceutical manufacturing category.
- Diaphragms of valves used in SIP sterilizers and sterilization steam lines in the pharmaceutical manufacturing category.
- Diaphragms used in cold evaporator valves in the energy category.
- Diaphragms used in valves for process piping in the energy category.
- Diaphragms of valves used for liquid (steam supply) supply for building equipment/manufacturing equipment category.
- Diaphragms used in valves for cold evaporators in the medical category.
- Diaphragms used in valves for process piping in the medical category.
- Diaphragms of valves used in RO water supply lines in the medical equipment category.

- Diaphragms of valves used for dialysate supply lines in the medical equipment category.
- Valve diaphragms used in blending lines in the printing ink manufacturing category.
- Diaphragms of valves used in liquid developer supply lines in the liquid crystal panel manufacturing category.
- Diaphragms of valves used in lines for various acidic/alkaline process fluids in the chemical industry category.
- Diaphragms of valves used for transfer and storage of corrosive fluids in the chemical industry category.
- Diaphragms of valves used in chemical lines of electrolysis equipment in the chemical industry category.
- Diaphragms of valves used for the supply and transfer of saturated steam and treated water in the chemical industry category.
- Diaphragms of valves used in chemical filling lines for chemicals in the chemical industry category.
- Bellows seals for valves used for sealing acids, alkalis, and medical fluids in the chemical industry, pharmaceuticals, and semiconductor category.
- Diaphragms of valves used in chemical dosing equipment for pretreatment processes in the seawater desalination equipment category.
- V-packing for valves used for high-temperature specification sliding part shaft seals in the industrial valve category.
- Diaphragms used in valves for cold evaporators in the aerospace category.
- Diaphragms used in valves for process piping in the aerospace category.
- Diaphragms of valves used in chemical lines of pure water equipment and wastewater

treatment equipment in the industrial water treatment category.

- Diaphragms of valves used in chemical lines for neutralization equipment and filtration equipment in the water and sewage treatment category.

- Valve diaphragms used in fermentation equipment in the food manufacturing category and various liquid food equipment line.

- Diaphragms of valves used in lines for various acidic/alkaline process liquids in the food manufacturing category.

- Diaphragms of valves used in lines for filling equipment in the food manufacturing category.

- Diaphragms of valves used in chemical lines for industrial water and wastewater treatment equipment for iron and steel industry category.

- Diaphragms of valves used in plating liquids and pickling lines in the steel industry category.

- Diaphragms of valves used in petrochemical and chemical category petrochemical plants and chemical plant fluid control.

- Diaphragms of valves used in electrolyte supply lines for electrolytic capacitors in the electronic component manufacturing category.

- Diaphragms of valves used in electrolyte supply lines in the secondary battery manufacturing category.

- Diaphragms of valves used for pressure control of cell evaluation equipment in the fuel cell manufacturing category.

- Valve diaphragms used in phosphoric acid fuel cells in the fuel cell manufacturing category.

- Diaphragms of valves used in chemical lines for neutralization equipment, wastewater treatment equipment, and electrolytic treatment equipment in the water treatment category for power generation.

- Diaphragms of valves used for manufacturing, transporting, and storing various high-purity chemicals in the semiconductor and electronics category.
- Diaphragms of valves used for supplying various high-purity chemical liquids in the semiconductor and electronics categories and waste liquid equipment.
- Diaphragms of valves used for semiconductor-grade pure water supply equipment in the semiconductor and electronics categories.
- Diaphragms of valves used in chemical supply lines for manufacturing secondary batteries in the semiconductor and electronics categories.
- Diaphragms used in valves for cold evaporators in the semiconductor industry category.
- Diaphragms used in valves for process piping in the semiconductor industry category.
- Diaphragms used in valves for cold evaporators in the transportation category.
- Diaphragms used in valves for process piping in the transportation category.
- Diaphragms of valves used in filling lines for luminescent liquids in the organic EL manufacturing category.

We are not yet aware of any other polymer with the same high flexibility as the fluoropolymer PTFE.

We may be able to develop alternatives, but we cannot prepare everything in a short period of time. For that reason, we require valves to comply with the conditions of restriction “until 13.5 years after EiF”.

It is desirable that the conditions of restriction corresponding to the multiple Uses described in this comment be clarified in the opinion of SEAC.