Denka

April 17, 2024
Denka Company Limited

Announcement of New Regulations set by the U.S. Environmental Protection Agency that apply to Chloroprene Rubber Manufacturing Facilities in the U.S.

On April 9, 2024 (local time), the U.S. Environmental Protection Agency (EPA) announced new chemical air emission regulations applicable to chloroprene rubber manufacturing facilities, including Denka Performance Elastomer LLC ("DPE," Denka has a 70% stake in the company.), a U.S. subsidiary of Denka Company Limited (Denka). The new emission regulations are as follows.

1. Summary of the New Regulations

According to the FACT SHEET (summary document) for the newly announced chemical air emission regulations ("new regulations"), which are currently under detailed examination, chloroprene rubber manufacturing facilities in the U.S. are required to take various emission control measures to substantially reduce emissions of chloroprene monomers (*1). The new regulations will take effect 60 days after the date of publication in the official gazette (not yet published at this time), and the grace period for taking such measures is 90 days from the date of publication.

2. Background and Future Actions

The new regulations respond to the results of the EPA's Risk and Technology Review (RTR), which is based on the EPA's 2010 Integrated Risk Information System (IRIS) carcinogenicity assessment of chloroprene monomers.

In contrast, DPE has long demanded that the EPA review the carcinogenicity assessment of chloroprene monomers based on the latest science, claiming that the carcinogenicity of chloroprene monomers is overestimated by IRIS.

However, since this RTR and the new regulations do not appear to review the validity of the carcinogenicity assessment based on the latest science, and will have a significant impact on DPE's continued operations, DPE plans to submit a request to the EPA for an extension of the grace period mentioned above, and will consider all possible measures, including filing a lawsuit in the U.S. Court of Appeals for review of the new regulations.

DPE has consistently operated this business of manufacturing chloroprene rubber in compliance with the emission standards of the state of Louisiana since it took over the business from DuPont on November 1, 2015. It also regularly measures the substance concentrations in the air around the factories and provides information on environmental activities to local residents and other stakeholders via the administrative authorities. It has further voluntarily invested a total of more than 35 million dollars in the environment based on consultations with the Louisiana Department of Environmental Quality (LDEQ) and the EPA, and has introduced emissions reduction equipment, resulting in an 85 percent reduction in Chloroprene monomers emissions as of 2019 compared to 2014.

3. Future Outlook

Currently, DPE is examining the new regulations closely, as well as their impact on the operation of DPE's chloroprene rubber manufacturing facilities and Denka's consolidated financial results. Further disclosures will be released promptly if any matters that require disclosure should arise due to further detailed examination, etc. in the future.

4. Supplemental Information (Carcinogenicity Assessment of Chloroprene Monomers)

Since the EPA's assessment, in 2010, of the carcinogenicity of chloroprene monomers, which was based on the Integrated Risk Information System (IRIS), overestimated their toxicity, DPE has been requesting EPA to perform review that incorporates the latest scientific technologies, and has consulted with EPA on the application of a model of physiologically based pharmacokinetics (PBPK). As a result, EPA has also accepted it, and DPE has been developing a new PBRK model jointly with EPA since 2018. Subsequently, in July 2021, DPE submitted a request to EPA for review of the carcinogenicity assessment of chloroprene monomers based on the new, jointly developed PBPK model.

However, in October 2022, the EPA denied DPE's request for review on the grounds that the carcinogenicity assessment of chloroprene monomer made in 2010 under the IRIS was codified through rigorous third-party peer review at that time and was the best available science at that time, consistent with EPA's information quality guidelines, and therefore there was no obligation to incorporate more current science into the assessment.

Despite the above, the results of the toxicity assessment using the new PBPK model were published in the leading science magazine, "Inhalation Toxicology." In the said publication, the "Recommendation Value" which is a 70-year average exposure concentration of 0.2 μg/m^3 or below based on EPA's 2010 IRIS carcinogenicity assessment was concluded to be overstated. In addition to the new PBPK model, a causal relationship between chloroprene monomers and carcinogenicity, as claimed by the EPA, has not been confirmed from the data, such as a recent epidemiological study updated by researchers at the University of Pittsburgh that followed approximately 7,000 employees who worked at the facilities handling chloroprene monomers for nearly 70 years in the U.S., and carcinogenic statistics around DPE plants by the Louisiana Tumor Registry.

5. Outline of the Subsidiary of Denka

(1) Company name	Denka Performance Elastomer LLC（DPE）
(2) Location	State of Louisiana, USA
(3) Title and name of representative	Kazuya Tokumoto, President & CEO
(4) Content of business	Manufacture and sale of synthetic rubber (Neoprene)
(5) Capital	121 million USD
(6) Major shareholders and share ownership ratio	Denka USA LLC (100% invested by Denka Company Limited): 70% DIANA ELASTOMERS, INC. (100% invested by Mitsui & Co., Ltd.): 30%
(7) Date of establishment	December 8, 2014

(*1) Chloroprene monomer: Chemical substance that is a raw material of chloroprene rubber

[Regarding DPE's environmental initiatives, please refer to the following information posted on Denka's official website. https://www.denka.co.jp/eng/]

- "U.S. EPA's Review of the Toxicity Assessment of Chloroprene Monomers (9th Report)" April 21, 2023
  https://www.denka.co.jp/eng/storage/news/pdf/445/20230421_denka_dpe_en.pdf
- "U.S. EPA's Review of the Toxicity Assessment of Chloroprene Monomers (8th Report)" March 6, 2023
  https://www.denka.co.jp/eng/storage/news/pdf/442/20230306_denka_dpe_en.pdf
- "U.S. EPA's Review of the Toxicity Assessment of Chloroprene Monomers (7th Report)" January 13, 2023
  https://www.denka.co.jp/eng/storage/news/pdf/439/20230113_denka_dpe_en.pdf
- "U.S. EPA's Review of the Toxicity Assessment of Chloroprene Monomers (6th Report)" October 28, 2022
  https://www.denka.co.jp/eng/storage/news/pdf/429/20221028_denka_dpe_en.pdf
- "U.S. EPA's Review of the Toxicity Assessment of Chloroprene Monomers (5th Report)" June 17, 2022
  https://www.denka.co.jp/eng/storage/news/pdf/407/20220617_denka_dpe_en.pdf
- "U.S. EPA's Review of the Toxicity Assessment of Chloroprene Monomers (4th Report)" April 28, 2022
  https://www.denka.co.jp/eng/storage/news/pdf/406/20220428_denka_dpe_en.pdf
- "U.S. EPA's Review of the Toxicity Assessment of Chloroprene Monomers (3rd Report)" July 20, 2021
  https://www.denka.co.jp/storage/news/pdf/901/20210720_denka_dpe.pdf
- "U.S. EPA's Review of the Toxicity Assessment of Chloroprene Monomers (Updated) "March 2, 2021
  https://www.denka.co.jp/eng/storage/news/pdf/332/20210302_denka_dpe_en.pdf
- "Latest epidemiological study of chloroprene monomer workers in the US" December 17, 2020
  https://www.denka.co.jp/eng/storage/news/pdf/317/20201217_denka_dpe_en.pdf
- "Transition to Review Process in Toxicity Assessments Reconsideration of Chloroprene Monomer by the United States Environmental Protection Agency" August 7, 2020
  https://www.denka.co.jp/eng/storage/news/pdf/311/20200807_denka_dpe_en.pdf

- “LDEQ confirms 85% emissions reduction achieved, DPE’s completion of voluntary program” June 8, 2020
  https://www.denka.co.jp/eng/storage/news/pdf/314/20200608_denka_dpe_en.pdf
- “Notice Regarding Litigation Against US Subsidiary” February 14, 2020
  https://www.denka.co.jp/eng/storage/news/pdf/265/20200214_denka_dpe_litigation_en.pdf
- “U.S. EPA’s Review of the Toxicity Assessment of Chloroprene Monomers” February 14, 2020
  https://www.denka.co.jp/eng/storage/news/pdf/266/20200214_denka_statement_en.pdf
- “Notice Regarding Initiatives to Reduce Environmental Burden Being Undertaken by Denka’s Subsidiary in the United States” June 19, 2019
  https://www.denka.co.jp/eng/storage/news/pdf/238/20190619_statement_en.pdf

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