PFAS issues and practical tips for real estate transactions involving PFAS

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1. Introduction

PFAS is a generic term for highly fluorinated perfluoroalkyl compounds and polyfluoroalkyl compounds among organofluorine compounds, and it is said that there are about 10,000 or more kinds of such substances. (*1)

*1: "Q&A Concerning PFOS, PFOA (as of July 2023)" by the Expert Committee on the Comprehensive Strategic Review of PFAS of the Ministry of the Environment," (available only in Japanese, July 2023), page 2

PFAS are chemically stable, water soluble, and non-volatile, and have a wide range of uses, including fire-extinguishing foams, semiconductors, and fibers. On the other hand, an academic institution in the U.S. has reported that PFAS can easily remain in the environment over the long term and are associated with elevated cholesterol levels, carcinogenesis, and harm to the immune system (*2). Therefore, from the viewpoint of preventive efforts, the Stockholm Convention on Persistent Organic Pollutants (POPs Convention) decided that PFOS were subject to elimination in 2009 and PFOA in 2019, respectively.

*2: NHK - Today's Close-Up "What are "PFAS"? How they affect global regulatory circumstances and human health?"(available only in Japanese, April 10, 2023)

As will be discussed below, Japan, as a party to the Convention, prohibited, in principle, the manufacture and import of PFOS in 2010, and PFOA in 2021, both of which are representative kinds of PFAS.

In June 2023, it was reported that 3M, Inc. in the U.S., which was sued by municipal water administrations in the U.S. for contaminating drinking-water with PFAS, reached an interim settlement agreement to pay to them up to $10.3 billion (approximately ¥1.5 trillion) over 13 years (*3).

*3: 3M News Center"3M Resolves Claims by Public Water Suppliers, Supports Drinking Water Solutions for Vast Majority of Americans" (June 23, 2023), Reuters "3M's $10.3 billion PFAS settlement gets preliminary approval" (August 31, 2023)

In Japan, there have been reports of groundwater contamination caused by the leakage of fire extinguishing foams

containing PFAS from U.S. military bases between 2010 and 2012 and after 2020. In addition, surveys by the Japanese government and Osaka Prefecture since 2019 found high levels of PFOA in groundwater in the vicinity of the Yodogawa Plant of Daikin Industries, Ltd. in Settsu City, Osaka Prefecture, where PFOA had once been manufactured.

As described above, in Japan, while risks of PFAS have rapidly become apparent in recent years, legal restrictions on PFAS are still in the developing stage. As PFAS create new issues, there are few precedents on how to deal with risks of PFAS associated with real estate transactions. In the future, we should expect to face difficulties in response to risks of PFAS in real estate transactions. This Newsletter explains matters that we believe should be understood regarding mitigating the risks of PFAS in real estate transactions.

2. Disputes over PFAS in the U.S. and Development of the U.S. Environmental Protection Agency's Regulations

(1) Examples of cases in the United States

Since the 2010s, PFAS have come to be regarded as a problem in the U.S., and a series of lawsuits have been filed by private individuals against PFAS manufacturers and water suppliers. In addition, environmental contamination caused by PFAS has been reported in Japan as well, especially in the vicinity of U.S. military bases. Specific examples of the cases in the United States are, as follows:

- In 2017, DuPont and its related companies settled 3,550 lawsuits filed by private individuals in West Virginia and Ohio for health-related injuries caused by PFOA flowing out of their plants, by paying $670.7 million, in total.
- In 2018, 3M paid a $850 million (approximately ¥130 billion) settlement to the state government of Minesota for drinking-water contamination and natural resource damages caused by a PFAS spill around Minneapolis, Minnesota.
- In 2019, 3M made an approximately $35 million settlement payment to a water supplier for the cost of remediation of PFAS in public water treatment plants in Alabama.
- In June 2023, 3M reached a tentative agreement to disburse up to $10.3 billion (approximately ¥1.5 trillion) to settle a lawsuit by the U.S. Municipal Water Administration over 13 years. (*4)

*4: 3M News Center"3M Resolves Claims by Public Water Suppliers, Supports Drinking Water Solutions for Vast Majority of Americans" (June 23, 2023)

(2) Regulatory moves by the U.S. Environmental Protection Agency (EPA)

Among PFAS, manufacturing and importing of PFOA and PFOS were restricted in the U.S. prior to the reports of environmental contamination by DuPont and 3M mentioned above. However, after reports of such environmental contamination by these companies, the regulations for PFAS were strengthened. The outline of the EPA's regulatory history is, as follows:

- Evolving from 3M's voluntary discontinuation of PFOS production in 2002, the EPA designated PFOS as material subject to SNUR in 2002 and introduced a system to permit production and import of PFOS.
- In 2006, a voluntary agreement was reached between the EPA and eight major PFOS producers, which called for a 95% reduction of PFOS by 2010 compared to 2000 and the abolition of PFOS by 2015.
- In 2012, the EPA required public water treatment facilities regulated by the Safe Drinking Water Act to measure the amounts of PFOA and PFOS.
- On February 14, 2019, the EPA announced an action plan to implement a comprehensive set of regulations on PFAS as a whole (including PFOA), setting limits on the amount of the substances contained in drinking-water.
- On June 15, 2022, the EPA issued guidelines on PFAS and substantially strengthened the drinking-water standards in general, taking into account the potential adverse effects of PFAS on the human body, such as carcinogenicity and impaired immunity.
- On March 14, 2023, the EPA announced, for the first time in history, the draft of national unification standards for perfluoroalkyl and polyfluoroalkyl compounds (namely PFAS) of organofluorine compounds in drinking-water.

3. Trends of Laws and Regulations concerning PFAS and Recent Cases in Japan

(1) Laws and regulations to date in Japan

Legal restrictions on PFAS have been gradually strengthened in Japan.

① Regulations under the Act on the Regulation of Manufacture and Evaluation of Chemical Substances (Chemical Substances Evaluation Act)

- PFOS were designated as a Class I Specified Chemical Substances (*5) under the revised Chemical Substances Evaluation Act of 2009 (enforced in April 2010) and prohibited from being manufactured or imported for certain uses. Under the revised Chemical Substances Evaluation Act of 2018 (enforced in April 2019), PFOS were, in principle, prohibited from being manufactured or imported for any use.
- PFOA were designated as a Class I Specified Chemical Substances under the revised Chemical Substances Evaluation Act of 2021 (enforced in October 2021) and in principle prohibited from being manufactured or imported.

*5: Class I Specified Chemical Substances are substances that are persistent, highly accumulative, and have long-term toxicity (posing a risk of harming human health and/or interfering with the inhabitation and/or growth of predatory animals at higher trophic levels if taken in continuously) (Chemical Substances Evaluation Act, Article 2, para. 2 "Environmental Law (4th edition)"(Tadashi Otsuka) p. 215).

② Regulations under the Water Pollution Prevention Act

- PFOS and PFOA were added to Designated Substances in the Enforcement Ordinance of the Water Pollution Prevention Act (revised in 2022 and effective from February 1, 2023). Designated substances refer to substances other than Harmful Substances and oil, which are specified by Cabinet Order (Ordinance for Enforcement of the Water Pollution Prevention Act, Article 3-3) as substances which are suspected of being harmful to public health or to cause damage that is likely to negatively affect living conditions by being discharged into Areas of Public Waters in large quantities (Water Pollution Prevention Act, Article 2, para. 4).
- The Water Pollution Prevention Act stipulates that, in the event of harm to public health or causing damage that is likely to negatively affect living conditions being suspected of occurring in Designated Facilities (*6) and the occurrence of other accidents, by discharging water which contains Harmful Substances or designated substances into Areas of Public Waters from the Designated Workplace (*6), or by permeation underground, the operator of a factory or workplace which has Designated Facilities must immediately take emergency measures to prevent the subsequent discharging or permeation of water which contains Harmful Substances or designated substances, and must promptly submit a report to the prefectural government of the status of the accident and the outline of measures taken (Water Pollution Prevention Act, Article 14-2, Paragraph 2).
- Accordingly, from February 1, 2023, it has become mandatory to take the emergency measures mentioned above and file an accident report if water containing PFOS or PFOA is discharged due to an accident.

*6: Designated Facilities are facilities which store or use Harmful Substances, or manufacture, store, use or treat Designated Substances (Water Pollution Prevention Act, Article 2, paragraph 4) and the Designated Workplaces are factories or workplaces which have Designated Facilities (Water Pollution Prevention Act, Article 14-2(2)).

③ Establishment of provisional targets and guideline values by the Ministry of Health, Labour and Welfare and the Ministry of the Environment

In 2020, the Ministry of Health, Labour and Welfare designated PFOS and PFOA as targets for water quality control and set a provisional target of 50ng/L (50 nanograms per liter) or less for the sum of PFOS and PFOA. In addition, the provisional guideline values for public waters and groundwater are also set at less than 50ng/L based on the sum of the values of PFOS and PFOA (*7).

*7: "Q&A Concerning PFOS, PFOA (as of July 2023)" by the Expert Committee on Comprehensive Strategic Review of PFAS of the Ministry of the Environment," (available only in Japanese, July 2023), page 2, "Guidance on PFOS and PFOA" by Ministry of the Environment and the Ministry of Health, Labour and Welfare, "" (available only in Japanese, June 2020), page 8

(2) Recent examples of problems in Japan

① Groundwater contamination caused by leakage of fire extinguishing foams from U.S. military bases

- On July 5, 2023, the Tokyo Metropolitan Government announced that based on a report from the U.S. military Forces through the North Kanto Bureau of Defense of the Ministry of Defense there were three leaks of fire extinguishing foams, containing PFAS, between 2010 and 2012, at an airfield at Yokota Air Base of the U.S. Forces (*8).
- There were also reports of PFAS spills at the U.S. military bases in Misawa, Atsugi, and Yokosuka due to the leakage of fire extinguishing foams and/or contaminated water.

*8: NHK Metropolitan Navi "Fire extinguishing foams containing PFAS were leaked inside the Yokota Base of the U.S. Military Forces. What is the status and issues of the groundwater survey and the problems to be solved ? "(available only in Japanese, July 6, 2023)

② PFOA in the vicinity of Daikin Industries' Yodogawa Plant in Settsu City, Osaka Prefecture

- A nationwide survey conducted by the Ministry of the Environment in fiscal 2019 reported that highly-concentrated PFOA were detected in groundwater in the vicinity of this plant (*9).
- According to a survey conducted by Osaka Prefecture in August 2022, it was reported that (21,000 nanograms of PFOA, which is 420 times the national limit, was detected in groundwater in the vicinity of the plant (*10).

*9: NHK Kansai NEWSWEB "Organofluorine Compound PFAS － Blood Concentrations of PFAS in the people in Osaka will be investigated" (available only in Japanese, September 12, 2023)

*10: Asahi Weekly DIGITAL "PFOA was detected in the vicinity of DAIKIN's plant - The Osaka-fu Settsu City and Citizen's Group Demanded policies to deal with it" (available only in Japanese, May 23, 2023)

4. Practical Tips in Real Estate Transactions with Risks of PFAS

(1) Judicial precedents regarding soil contamination and underground obstacles

When considering how to deal with PFAS problems, it is necessary to understand the precedents regarding soil contamination and underground obstacles.

First, the Supreme Court precedent states that the presence or absence of a defect in the subject of a contract is determined by taking into account the common sense in trade at the time of the conclusion of the contract (Supreme Court, June 1, 2010, Minshu Vol. 64, No. 4, at 953 / Hanrei Times No. 1326, at 106). In this case, the buyer of the subject property claimed against the seller based on defect liabilty for compensation for damages for the necessary expenses for the disposal of soil contamination (fluorine), because specified hazardous materials (fluorine) that were not regulated by law at the time of the conclusion of the sales contract but regulated after the conclusion were found in the soil. The Supreme Court decided that the presence or absence of a defect should be determined by taking into account the "common sense in trade" at the time of the sales contract. In this case, the Supreme Court ruled that fluorine contained in the subject property that exceeded the environmental standard was not a defect under the Civil Code, regardless of whether the substance was recognized as harmful or not, on the grounds that at the time of the sales contract, it was specifically regarded that no substance that might cause human health-related damage was contained.

With the amendment of the Civil Code (amendment of laws on the claims) enacted in May 2017, the concept of defect liability was abolished and it was replaced by the concept of liability for non-compliance with the contract. However, the Supreme Court precedent above on "defect" under the former version of the Civil Code is still helpful in determining whether there is non-compliance with the contract.

Applying the Supreme Court's precedent to PFAS, although the perception of the dangers of PFAS is spreading, the standards of PFAS permitted to be in the soil are not yet set, but it can be considered that they would be the same as fluorine before it was regulated by statute.

Judging from other precedents regarding soil contamination, the disputes appeared to be dependent on whether or not there was a standard value (an environmental standard value) stipulated by law for substances contained in the soil. If there is an environmental standard value for a substance contained in the soil and the quantity of the substance exceeds the standard value, it is likely to be found to be a defect (Tokyo District Court, September 5, 2006, Hanrei Times No. 1248, at 230, Tokyo District Court, November 11, 2013, Hanrei Hisho L06830896). On the other hand, if there is no standard value, it tends to be difficult to determine whether or not there is a defect. For example, cases where the soil contained non-toxic underground obstacles and/or oil (Tokyo District Court, Sep. 27, 2002, Hanrei Hisho L05732039, Tokyo District Court, March 26, 2010, Westlaw 2010WLJPCA03268023) fall under these. In addition, although its risk is generally recognized, it is often difficult to determine whether or not asbestos, for which there is no environmental standard value when it is present in the soil, will lead to nonconformity with the contract (a defect) if it is present in the soil (Tokyo High Court, June 28, 2018, the court Website and Hanrei Jiho No. 2405, p23).

(2) Countermeasures based on the characteristics of PFAS

As described above, the risks of PFAS have been recognized and regulations have been developed. However, currently, only provisional targets and guideline values have been set for groundwater contamination, and any environmental standards when PFAS are present in the soil have not yet been established.

If such substances are found in the soil, it is more likely to be disputed whether they do not conform with the contract. Therefore, in cases where there is a potential risk of PFAS in the soil, it is considered that the parties should clearly provide for the treatment of PFAS found in the soil in the contract. In addition, it is desirable to have a provision for dealing with nonconformity with the contract due to the existence of PFAS.

The specific terms and conditions of the contract that are required depend on the specific facts of each case and whether the party is the seller or the buyer of the subject property. For example, it would be desirable for the buyer to be able to claim against the seller for, among other things, the disposal cost in excess of the cost of ordinary soil disposal, the cost of investigation, and/or the cost of delay in the construction due to the existence of PFAS. On the other hand, if the seller wants to avoid such claims, it may be a good idea to provide for limitation of liability, as necessary.

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