Activities of JAPIA

9th Voluntary Action Plan for the Environment

Report: Environmental Management Committee

Promoting environmental activities for members for more than a quarter of a century

JAPIA has been promoting environmental activities for its members under its "Voluntary Action Plan for the Environment". The first plan was formulated in 1996 in response to a call from Keidanren (Japan Business Federation) for industrial organizations to formulate their own voluntary environmental action plans, and the Environmental Management Committee has been playing a central role in its implementation. Since then, the plan has been revised and the 9th "Voluntary Action Plan for the Environment" (revised version) was released in April 2022.

The 9th (revised) version strengthens CO_2 reduction. Formulated in accordance with government targets

The 9th Plan (revised version) reinforces the reduction of carbon dioxide (CO_2) as a countermeasure against global warming, and this is due to the major movement of the international community and the Japanese government toward decarbonization centered on the Paris Agreement.

At the 2021 Climate Change Summit in the United States, the Japanese government has significantly increased its greenhouse gas emissions reduction target for 2030 to emissions reduction target by 46% from the fiscal 2013 level. At the 26th Conference of the Parties (COP26) to the United Nations Framework Convention on Climate Change (UNFCCC), Japan also announced a 46% reduction target, with a further view to achieving a 50% reduction. The government's Green Growth Strategy has also a policy to switch all new passenger cars sold in Japan to electric vehicles by 2035, and the government's Sixth Basic Energy Plan, issued last year, also calls for a power source composition of about 59% to be non-fossil fuel in 2030. In response to this trend, JAPIA has formulated the 9th Plan (revised version), which further raises the target value in line with the government's target.

The main contents of the plan are as follows: ①The FY2030 target for CO_2 emissions will be changed from basic unit (shipment value) to total emissions (the electricity conversion factor will be used as a variable factor). ②Set targets

for FY2025 for the final disposal volume of industrial waste and the recycling rate and refer to new initiatives related to plastic resource recycling. ③Activities to reduce emissions of volatile organic compounds (VOCs) will not have set numerical targets, but efforts will be made to curb the increase.④Strengthen initiatives for effective use of water resources and renewable energy.

As a numerical target, we aim to reduce CO_2 emissions in FY2030 by 46% or more compared to the FY2013 level, targeting energy-derived emissions from domestic business sites of members. To maximize reduction efforts as the auto parts industry, we assume that energy-saving efforts and active use of renewable energy will be made.

We will also take on the challenge of maintaining the final disposal volume of industrial waste at 36,000 tons or less in FY2025. This is equivalent to a 75% reduction from the FY2000 level. We will also challenge to achieve a recycling rate (including valuable resources) of 85% or more.

The six main initiatives to achieve our goals are: global warming countermeasures, establishment of a recycling-oriented economic society, management of environmentally hazardous substances, pursuit of eco-efficiency, establishment and upgrading of environmental management systems, and environmental considerations in the development of overseas business.

About to global warming countermeasures, we are working to reduce CO_2 emissions from the product development and design stage to the production stage. As parts manufacturers, we will actively cooperate with automakers' plans to introduce next-generation vehicles with improved fuel efficiency and environmental friendliness to the market, and we will also promote the industry standardization of LCA evaluation methods, weight reduction of parts and improvement of performance and efficiency, and development of new systems and materials. In addition, we will promote the sharing of various CO_2 countermeasure information and energy-saving technologies collected from members and other industries, as well as the active introduction of renewable energy.

To build a recycling-oriented economic society, we will promote the improvement of recyclability at end-of-life vehicle disposal, reduction of industrial waste, and effective use of water resources. We will consider recyclability at the product development and design stage and strive to improve product degradability, material identification, and reuse, as well as to develop

reuse and recycling technologies for end-of-life vehicles. We will promote solutions to the marine plastic problem and plastic resource recycling through the effective use of waste plastics, thorough proper disposal of waste plastics, and reduction of the use of disposable plastics. In the area of water resources, we will assess water risks in terms of both water quantity and quality, share information on efforts to reduce water consumption and recycle water, and promote comprehensive water resource management.

In the area of environmentally hazardous substances, in addition to the management of chemical substances contained in products, we are working on the management of chemical substances related to production, including Pollutant Release and Transfer Register (PRTR) substances and VOCs. To ensure thorough management of environmentally hazardous substances, we will also work to maintain and improve unified data sheets that enable efficient management of chemical substances in the supply chain. In this way, we will promote global environmental conservation and reduce the environmental impact of the final disposal of end-of-life vehicles and aim to link our efforts to international trends such as the End-of-Life Vehicle Directive in the EU and emerging countries.

With regard to eco-efficiency, we will continue to promote both environmental friendliness and product performance in the production process of our products.

In addition, we will actively promote the establishment and upgrading of environmental management systems such as ISO14001, the promotion of green procurement, environmental considerations in overseas business activities, and the spread of environmental technologies in Japan.

Mr. Mutsuhiro Seshita, Chairman of the Environmental Management Committee (director in charge of the Environment Department and general manager of the Environment Department, Safety and Health Promotion Division, Corporate Infrastructure Division, AISIN Group), who is in charge of promoting the 9th Plan, commented on decarbonization in the auto parts industry: ”In the 8th Plan, the reduction of energy consumption has definitely produced results. However, the parts industry has many processes that use thermal energy, such as melting and heat treatment processes, which need to be converted to electricity. It will be difficult for individual companies to achieve the targets of the plan under the circumstances where the composition and production process of automotive parts will change drastically with the

acceleration of electrification in the future. If there is a basic policy such as JAPIA's voluntary action plan, it should be easier for companies to act. For small and medium-sized enterprises, it is effective to start energy conservation activities by first gaining a firm grasp of their energy consumption, and 'visualization' of energy through IT will be important". He emphasizes importance of sharing information on each company's efforts.

JAPIA publishes examples of members' efforts on its website

Every year, JAPIA solicits examples of CO_2 reduction efforts from members and publishes them on its members-only website. We usually accept applications in July each year, and actively hold study sessions based on the case studies. Mr. Michito Tanaka, chief of the Global Warming Prevention Promotion Subcommittee (Group Leader, Environmental Planning Office, Carbon Neutral and Environmental Promotion Department, Toyoda Gosei), analyzes the current situation: "Many of the case studies involve daily improvements such as operational management that do not require much investment cost, but there are also cases of facility improvements such as the introduction of energy-saving equipment and recovery of waste heat that have had great effects". "The volume of the case studies is large and sometimes it is difficult to read and understand. The subcommittee members pick up recommended case studies and explain them in the study sessions to provide 'awareness' to members," said Mr. Seshita.

Regarding the waste target, which is another pillar of the 9th Plan, Mr. Suguru Taira (Deputy Center Chief of Toyota Boshoku Carbon Neutral Environmental Center), the chief of the Environmental Preservation Subcommittee, explains the background of the plan's formulation: " The amount of final disposal of industrial waste under the 8th Plan continues to meet the target, with actual results of 21,000 tons, compared to the FY2020 target of 45,000 tons or less. This plan is linked to the Keidanren Voluntary Action Plan for Establishing a Recycling-Oriented Society, and through the efforts of the entire industrial sector, the problem of tight capacity at disposal sites, which was a serious problem in the 1990s, has been improved. (The number of remaining years for disposal, which was a little more than two years in the 1990s, increased to about 17 years in FY2016). The recycling rate target was achieved with an actual rate of 92.4%, compared to a target of 85% or higher. However, there are the suggestion that further reductions of final disposal volume may run

counter to the realization of a low-carbon society, such as increased energy consumption. In addition, there are factors that may increase the volume of final waste disposal due to the tightening of waste import regulations in China, Southeast Asia, and other countries. Given the above background and the fact that both indicators are the most representative indicators for the formation of a recycling-oriented society, we have decided to continue our efforts considering the importance of resource recycling and have set the 9th target at 36,000 tons or less and 85% or more as mentioned above, respectively. We will work on the final disposal volume under the concept of not increasing it from the current level (restraining the increase).

Although responses to the recycling rate vary depending on the type of the business of the members, promotion of recycling leads to a decrease in the final disposal volume. In addition, we have incorporated responses to the ever-increasing demand for resource recycling, such as solving the domestic waste plastic problem and the marine plastic problem.

In addition, the Law Concerning the Promotion of Resource Recycling of Plastics went into effect in April of this year, and we would like to contribute to the creation of a recycling-oriented economic society by enhancing and strengthening our efforts."

JAPIA has published 192 case studies of waste reduction initiatives from members on its members-only website. In addition to soliciting CO_2 reduction initiatives (every July), JAPIA asks members to actively participate in annual follow-up surveys (energy consumption and by-product generation surveys) and to share information on their initiatives, including at explanatory meetings and study sessions, with the aim of steadily achieving the plan's targets.