

Background of the automobile recycling law enactment in Japan

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Abstract

On July 5, 2002 the Law Concerning Recycling of End-of-Life Vehicles popularly known as the “Automobile Recycling Law” was enacted in Japan. This paper examines the features of this Law, reasons why the Law was brought into existence, and its predicted impacts on the automobile industry. Pursuant to the Law, the current automobile recycling system was replaced by a new one in January 1, 2005.

Key Words : End-of-Life Vehicles, Recycling, ASR: automobile shredder residue, EPR: extended producer responsibility.

요 약

일본에서는 2002년 1월 5일 흔히 “자동차재활용법”이라고 알려진 ‘폐자동차 재활용에 관한 법률’이 시행되었다. 본 고에서는 이 법의 특징들과 제정된 배경 및 이 법이 향후 일본 자동차 산업에 미칠 수 있는 영향들을 살펴보고자 한다. 이 법에 따라서 현재 일본의 자동차 재활용 시스템은 2005년 1월 1일부터 새로운 형태로 바뀌었다.

주제어 : 폐자동차, 재활용, ASR(자동차 슈레더 잔사), EPR(생산자책임제도)

1. INTRODUCTION

1.1. The Japanese System of ELV Recycling until 2004

The starter is Japan's automobile recycling system until 2004: how end-of-life vehicles (hereafter “ELVs”) have been treated and recycled up to now. According to the Japanese Ministry of Economy, Trade and Industry, roughly 5 million units of ELVs are generated annually, of which one million units are exported for reuse in other countries, leaving 4 million units as genuine ELVs to be recycled within Japan. A new development in this overall picture is a sharp rise in ELV exports to foreign recycling businesses primarily for two reasons: a serious shredder residue issue in Japan which will be discussed later in this paper, and a growing demand to recover metals from ELVs in China and other industrializing Asian countries.

Although the above is the outline of the existing ELV recycling system, the reality is more complex and

involves many intermediate operations. For example, pressing operators exist between dismantlers and shredder operators to press the stripped-down ELVs into uniformly shaped masses for easier transportation. In many cases there are also iron scrap agents, dubbed “guillotine” agents, who shear the pressed stripped-down ELVs into smaller sections for easier shredding operation. As many types of business operators are involved in the recycling of ELVs, non-automotive waste is often mingled and pressed together with the dismantled ELVs.

Under Japan's ELV recycling system until 2004, engines and some other parts are recovered and sold by dismantlers as reusable or recyclable resources. Fluorocarbon gases (“CFCs”) and airbags are recovered for special treatment. Most of the recovery work is done manually. After recovery of these items, the dismantled or stripped-down ELVs are fragmented by a large crushing machine called “shredder”, and the fragments are separated according to specific gravity into salable metallic scrap and automobile shredder residue(“ASR”) bound for landfill grounds.

The Japanese ELV recycling system until 2004 has

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functioned on the principle of market force, and auto makers have played no significant role in the recycling of ELVs. Perhaps the most important, if not the only, role that auto makers were expected to assume was to incorporate more easily recyclable structures and materials into their vehicles - the requirement prescribed both in the 1991 Law for Promoting the Use of Recycled Resources (former "Recycling Law") and in the 2000 Law for Promoting the Effective Use of Resources (Revised Recycling Law). But this requirement has proved ineffective in increasing the number of easier-to-recycle vehicles and the consumers to buy them on a priority basis. Partly because of the auto makers' limited involvement, the current ELV recycling system has suffered from the fact that an overwhelming majority of the players are small business operators who lack sufficient facilities and finance to take truly environmental steps.

2. Why the Automobile Recycling Law?

2.1. Three Factors

In trying to understand why the Automobile Recycling Law was introduced in Japan recently, some background factors can be found. The first factor was no doubt the impact from the European Union's reform of its ELV recycling system. Widespread discussion on the proper treatment of ELVs began around 1990 in Western Europe, and the ELV Directive of the European Union was issued in October 2000 to apply a uniform ELV recycling policy to the entire EU region. The European Union being an important market for Japanese auto makers and its ELV Directive having the implications of a global standard, Japanese auto makers were compelled to make a definite response to the European decision.

As for another background factor for the enactment of the Automobile Recycling Law in Japan, the existing recycling system was coming to a standstill after functioning totally on the principle of market force. The waste disposal incident most unforgettable to the Japanese people is probably the "Teshima Island Case" that transformed a good part of a scenic island off the Kagawa Prefecture into an ugly dumping ground. While the details of this incident committed by private recyclers are omitted in this paper, the former

Ministry of Health and Welfare (MHW) was particularly alarmed by the fact that the largest portion of the waste brought to this island from the mainland was ASR.

The MHW quickly put the disposal of ELVs under the control of the Law for the Treatment and Cleaning of Waste. Additionally, in June 1995, the Ministry announced the "Guideline for Prior Selection of Automobiles and Electric Appliances to Be Treated by Shredders", thus introducing a certain environmental standard on ELV treatment. For the first time ASR was classified as a harmful type of waste that must be cast in a "managed" landfill site rather than in an ordinary landfill ground. Since the environmental requirements for managed landfill sites were stricter, the absolute number of these sites in Japan had remained small and would most likely remain small. An obvious solution therefore would be to reduce the ASR volume by elevating the level of recycling, and Japan's Auto-mobile Recycling Law was brought into existence in 2002 with the important mission of dealing with the ASR issue.

Regarding the third background factor for the enactment of the Automobile Recycling Law, a theory drawn by this author is that the Law reflects the government's policy to foster a full-fledged environmental industry.

3. Japanese Model of Extended Producer Responsibility

The Automobile Recycling Law attempts to initiate a Japan model of extended producer responsibility in the area of ELV recycling. The Law will impose on auto makers and importers the responsibility of receiving and recycling ASR, the most difficult-to-recycle item, and CFCs and airbags, two environmental impact and hazardous items which have hardly been recovered by recycling business operators up to now. The Law also introduces the new concept of a "collector" whose responsibility is to receive ELVs from users in an appropriate way and forward the accepted ELVs to a licensed dismantlers or another qualified recyclers.

When the new recycling system starts operation this year under the Automobile Recycling Law, new-car dealers, used-car dealers, maintenance shop operators and some dismantlers are anticipated to serve as

qualified ELV collectors. The collectors, dismantlers and shredder operators will be the major players in the ELV recycling channel, who will operate in a transparent way according to a rule of ELV acceptance, treatment and delivery so as to ensure that ASR, CFCs and airbags are delivered finally to auto makers and importers for proper treatment. These movements of ELVs and the three difficult-to-recycle items in the recycling channel will be monitored by an electronic manifest schemes.

To clarify the features of the Automobile Recycling Law, a comparison is made below with the Law for the Recycling of Specific Electric Home Appliances (“Appliance Recycling Law”), which was entered into force in April 2001. The most notable difference lies in that, while the Appliance Recycling Law requires makers and importers to collect used electric home appliances at designated acceptance places, the Automobile Recycling Law requires auto makers and importers to collect only the ASR, CFCs and airbags that are generated from normal ELV recycling operations. The reason for this limiting of items to be handled by auto makers and importers is to keep sufficient business opportunities for the existing recyclers (the above-mentioned concept of the Law) while minimizing the volume of ASR bound for landfill sites.

In contrast, the ELV Directive of the European Union is similar to Japan's Appliance Recycling Law in that European auto makers and importers are required to collect and properly treat ELVs inclusive of all part and component items. The limiting of the responsibility of auto makers and importers to ASR, CFCs and airbags comes as the foremost characteristic of the Japan model extended producer responsibility portrayed in the Automobile Recycling Law. Consequently the backbone idea in Japan's Automobile Recycling Law may be summarized as follows: “The biggest problem in the current recycling of ELVs is ASR but, once a solution to the ASR issue is found, the rest of the ELV recycling tasks can be handled by the existing recycling interests.”

4. CONCLUSION

Lastly, the author will summarize the background

factors leading to the 2002 enactment of the Automobile Recycling Law. The foremost factor was Japan's response to the ELV Directive of the European Union, which was regarded as a de facto global standard by Japanese policy makers. And whether it was the recycling of automobiles or home appliances, the policy makers believed a key to survive from world business competition would be to live up to global standards. As the European Union had proved itself to be the leader of advanced environmental regulations, Japanese businesses must remain competitive in the EU market by complying with EU regulations, in order to be competitive in other markets.

To be sure, evidently it is not easy for the EU member states to absorb the ELV Directive into their national regulations as the European nations are slow to legislate their automobile recycling laws based on the ELV Directive. While the ELV Directive exempts trucks, buses and motorcycles from its application, Japan's Automobile Recycling Law is applied to buses and truck chassis with a cab, as well as passenger cars. Truck trailers, superstructures and motorcycles will be recycled by their manufacturers on a voluntary basis.

Another crucial background factor was the Teshima Island Case that prompted Japanese lawmakers to put the top priority of the Automobile Recycling Law on the recycling of ASR and on the concept of extended producer responsibility, making it mandatory for auto makers and importers to do the ASR recycling.

Further, as another background factor, the Law probably reflects the intention of the Japanese government to develop a viable recycling industry as part of its master plan to transform Japan into an advanced recycling society. Welfare, information technology, and environment are considered to be the three new frontiers for the manufacturing-intensive Japanese economy to expand into. And the Automobile Recycling Law can be regarded as a device set by the government to promote eco-business.

REFERENCE

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