

1. Project Name

2.3.13 Study for Rationalization of Industrial Water Use by Respective Industry Type (Food and Beverage Processing Industry)

2. Project Name

Study for the rationalization of industrial water use by respective industry type (Grocery and beverage manufacturing industry)

3. Objectives

Performed actual consume analysis of industrial water in each industry, in consideration of the changes in circumstances surrounding the industrial water, due to changes in the social structure and the development of technology. And develop a basic data needed for examining possibility and policy of rationalization of water use.

4. Contents

In the fiscal year 2012, the survey was summarized and actual situation was clarified by questionnaire, site visit and the literature study concerning to the water use condition, outline of the intake and wastewater treatment or status of the reuse of recovered water and associated problems.

5. Results

(1) In the field of the grocery and beverage manufacturing industries, usage ratio of boiler, raw materials and product processing and washing, were high, and the ratio of cooling and temperature control use were low comparing with the whole manufacturing industry.

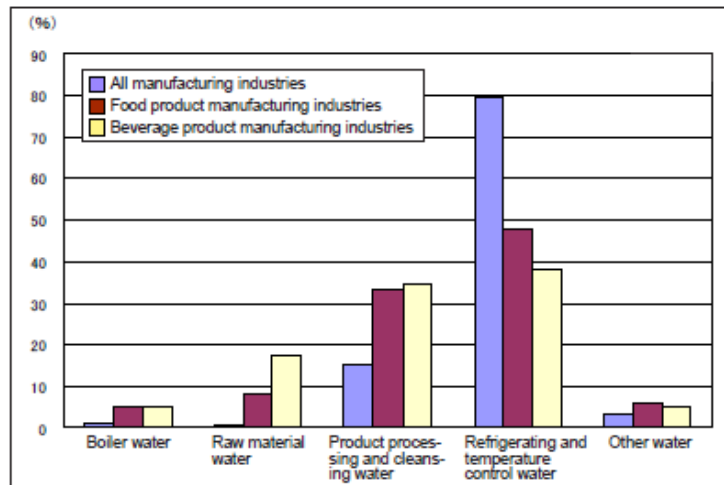


Fig. Comparison of percentage breakdown of water usage by purpose. 2010)

(2) Generally, it is easy to recover and reuse those water that is used as cooling and temperature control. In the case of grocery and beverage manufacturing industry, uses of water in these industries are small, and that seems to have contributed to the low rate recovery.

(The reason for protrusion in the drink manufacturing industry in 2009 is unknown.)

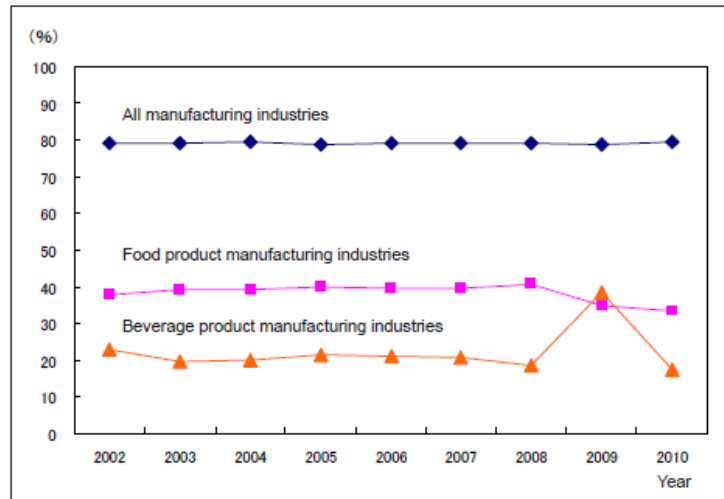


Fig. Breakdown of recovered water within freshwater usage amount (Recovery Rate)

(3) On the other hand in recent years, active movement towards the rationalization of water usage has been done for the purpose of environmental preservation and as an effort to decrease costs regarding energy and wastewater processing. It became clear that there are plans to implement new technology such as RO membrane processing and new technologies derived from water quality data.

In the future, water rationalization is expected to spread from the perspective of multiple positive qualities such as decrease in costs, energy saving, and load reduction in waste water treatment, not limited to water preservation, and based on rational data analysis, giving attention to hygiene.

6. Reference

This project is conducted as a voluntary project of Water Reuse Promotion Center (WRPC).