

## Research on Singular Use of Disposer in Kitakyushu City

Year of Research

2006・2007

### (Purpose)

Recently social interest on disposers, which can process kitchen waste quickly and conveniently, has been being developed due to a change of lifestyle, an aggravation of kitchen waste problem in cities, an arrival of aging society, and the proven performance of disposers in overseas. Disposers can be also considered as an effective tool for recovering energy from domestic waste in conjunction with the sewer system.

Based on such circumstance, the examination committee on disposer in Kitakyushu City was established in 2004 to discuss necessary considerations prior to introducing disposers such as technical measures and institutional arrangements regarding the effects on the existing sewer system and solid waste management system as well as cost burdens among the stakeholders.

This comprehensive study was conducted along with the discussion in the committee to investigate the impacts of disposers on the sewer system and solid waste management system as well as lifestyle of residences from various view points including economical and environmental aspects, and prepare draft recommendations on the use of disposers.

### (Results)

#### (1) Study conditions

The study was conducted under an assumption that all the houses connected to sewers in Kitakyushu City used disposers. Factors and values used in the study were set based on the results of the monitoring studies conducted in Kukinohama area.

#### (2) Effects on sewer system

The operation of sewerage treatment processes should be changed due to mixture of kitchen waste into sewage although the amount of kitchen waste did not require the expansion of treatment facilities. In combined sewer system, it was concerned on the increase of pollution loads discharged to public water body in rainy days.

#### (3) Effects on solid waste management system

The use of disposer had a positive effect on the reduction of waste volume. On the other hand, it was necessary to change the operation of solid waste treatment facilities such as incinerators due to changing composition of waste.

#### (4) Effects on lifestyle

Although the use of disposers had a merit on reduction of waste volume, it had demerits on sewerage system such as clogging sewers when proper maintenance of disposers was not conducted.

#### (5) Economical and Environmental evaluation of disposer

The use of disposers had a positive effect on economic sides due to reduction of administrative costs in public sector. On the other hand, it had a negative effect on anti-global warming measures due to increase of green gas discharge.

### (Conclusion)

In the examination committee on disposer in Kitakyushu City, conditions to admit the use of disposers which were ① improvement on combined sewer overflow control, ② practice of anti-global warming measures, and ③ formulation of necessary institutional arrangements and clarification of demarcation on roles among the stakeholders were proposed to solve and reduce issues related to the use of disposers. It was recommended for proper introduction of disposers that the use of disposers be determined in terms of change of social-economical environment on disposers and future trend of public opinions and policies at the time of the use while further studies on these conditions were conducted.

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Key words

Disposal, consideration for introduction, environmental assessment