

## Joint research on the technological manual of the composting facility of sewage sludge

Whole term

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### (Purpose)

According to the increase of sewerage systems, the quantity of sludge generated from wastewater treatment plants increase annually at a rate based on the sludge solid weight as 1560000 ton/year. Most of this sludge has been dumped in landfills. However, it is very difficult to obtain sites for landfilling. Therefore, a way of waste sludge disposal is important task for local autonomous regions.

The technology of composting had been popular for some time. However, the technology became unpopular because of the difficulties in the distribution of products and selling, and high construction cost of the facility. In this situation, there is a trend to recycle sludge effectively as composts to be used in grasslands and the agriculture considering sludge as resource, but not a waste.

Nevertheless, a detailed list of investigation and its method as a plan for composting has not been established yet. Therefore, a local autonomous region can not adopt this system easily even though they concern it.

This joint research set a goal, i.e an investigation on planning a process for composting, economical efficiency, and problems faced by suppliers and demanders; and thereafter arrangement of a technical manual about sewage sludge composting and eventually offering an index for the effective facility plan and operation.

### (Results)

In order to operate the facility, a list of points to be considered in the process of sewage sludge composting, and distribution and selling of composts was arranged as a manual including a questionnaire survey on composting facilities in local autonomous regions.

The contents of the manual are as follows:

Chapter 1. General rules; Chapter 2. Introduction; Chapter 3. Distribution of compost products; Chapter 4. Plan; Chapter 5. Design; Chapter 6. Maintenance management; Chapter 7. Mixed composting with other materials; Chapter 8. Description of the composting facility.

The appendix consists of the results obtained through the questionnaire survey on the model of the composting facility and examples for profits achieved by the manufacturer.

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Keywords

Composting, Transportation and sale of products, Plan of facilities, Design technique