

## Research on the practical application of the overflow filtration screen for sewerage of combined system

Period

2000.10-2001.3

( Purpose )

For sewage works of our country, the improvement of combined sewerage which the effect appears comparatively earlier in comparison with separated sewerage was undertaken in the cities, where the improvement of sewerage had been advanced. However, for the combined sewerage, the influence of the discharge on public waters in rainy weather was worried, and many problems such as landscape and odor have been indicated, because a part of untreated sanitary sewage will be discharged to the public water zone due to exceeding the plan capacity of utilities in rainy weather.

In this organization, "the filtration screen review board" was held for two years since 1996, and examination and negotiation on the filtration screen technology were carried out as countermeasure against the combined sewerage overflow, as a result, "the countermeasure of combined sewerage overflow (CSO) filtration screen plant design material" was issued in July, 1998. Since then, the filtration screen utilities were installed in several cities, and the necessity of examination by extracting the new problems has occurred.

In this study, the introduction history and installation effects, maintenance, improvement opinions of operating filtration screen and so on are investigated and arranged by the questionnaire survey, and the basic data for manual of design is made as the purpose.

( Result )

(1) Introduction history of the filtration screen

It is a main purpose for installing the filtration screen that retains the landscape of overflow effluent stream, and selects the site where it is easy for installation and maintenance. And, as the reason of impossible installation, there were many opinions that it is difficult to secure the spot of the hydraulic unit

(2) Effect of installation of filtration screen

Installation effect of the filtration screen was able to be evaluated by the collecting water of sanitary sewage around the filtration screen, and on the improvement effect to surroundings, there were many cities been not evaluated because of no quantitative evaluation technique.

(3) On maintenance

The trouble which becomes problem does not occur on the filtration screen.

However, there were many cities replied that it will be possible to complain from the inhabitant on noise and installation position of the hydraulic system in future.

(4) On improvement of equipment

With the installation of the filtration screen, there was an opinion on reduction of effect to the upper river basin by the backwater, compaction ( installation to storm outfall sewer room, etc. ) of control panel and hydraulic unit, and standardization of the evaluation technique.

( Future program )

On the base of questionnaire result, the work of making manual of design data will be carried out from 2001.

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Key Words

Filtration screen, confluence improvement, storm water outfall room