

WRC Sanitation Reports

Report No: 1629/1/08

Research into Urine Diversion Ventilated Improved Doubled Pit Toilets: Physical and Health-Related Characteristics of UD/VIDP Vault Contents

(CA Buckley; KM Foxon; N Rodda; CJ Brouckaert; S Mantovanelli; and M Mnguni)

eThekweni Municipality is considered one of the leading municipalities in South Africa in the provision of basic sanitation services. The municipality has selected urine UD/VIDP toilets as the preferred delivery mechanism for certain communities in their area of responsibility. At the end of 2007, there were 58 000 toilets constructed with the plan to build 10 500 new units per year. This project aimed to provide a scientific basis for the design and operation of UD toilets as used by the municipality; evaluate the effectiveness of UD toilets in improving the well-being of the user community and determine the fate of *Ascaris* spp. eggs from UD toilets.

Report No: TT 275/06

Guidelines for the Design, Operation and Maintenance of Urine Diversion Sanitation Systems

(LM Austin)

Urine diversion sanitation technology is based on the concept of keeping faeces and urine separate. The main advantages of this approach are, firstly, that the valuable nutrients (nitrogen, phosphorus and potassium) found in urine can be captured and reused, and secondly, that the dangerous pathogens present in faeces are more easily isolated from the environment. This report briefly introduces the concept of urine diversion. This is followed by guidelines for constructing a urine diversion toilet, with sections on building materials and methods for the superstructure, faeces vault, urine pipes, ventilation and fly control, and upgrading of ventilated improved pit and bucket toilets. A number of illustrations accompany the text, including pictures of both good and bad practice.

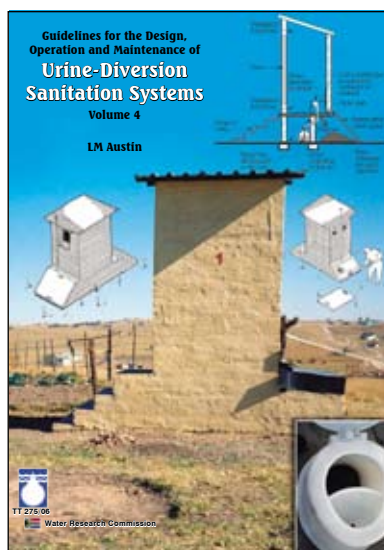
Operation and maintenance aspects are covered in detail, with sections on dehydration, odour and fly control, cleaning the pedestal, disposal of anal cleansing material, urine collection and disposal, clearing blockages in the urine pipes, and faeces management.

Report No: 1635/1/07

Towards a Knowledge and Information Dissemination Strategy for Sanitation

(Hlathi Development Services)

Much research has been done to address the major issues responsible for poor progress in the reduction of sanitation backlogs in developing countries. Effective communication and dissemination of this information to decision makers and sanitation implementing agents remain a big challenge for the sanitation sector. The aim of this project was to improve dissemination of sanitation knowledge and information and to develop effective mechanisms for promoting the implementation of best practice by sanitation sector players.



Report No: 1523/1/07

The Effectiveness of Sanitation Awareness and Education Programmes in Informal Settlements (Nemai Consulting)

This research project investigated the impact of sanitation education and awareness programmes in informal settlements in South Africa. Seven programmes were reviewed and evaluated and the lessons learnt documented. Government departments, municipalities, water services providers, water utilities, water boards, and non-governmental organisations were contacted.

Report No: 1386/1/05

Impacts of Stormwater and Groundwater Ingress on Municipal Sanitation Services

(D Stephenson and B Barta)

Stormwater inflows and groundwater infiltration into sewers have costly implications for municipalities. One of the main findings of this project was that most water services authorities and water services providers in South Africa resort to reactive maintenance. It was found that stoppages and clogging sewers in South Africa are about ten times higher per unit length than the international average.

Report No: 1438/1/05

Strategic Approaches in the Provision of Sanitation Services to Informal and Unserviced Areas

(Alvin Lagardien and Deborah Cousins)

According to this study, most of the current infrastructure delivery approaches are not able to integrate the components of health, infrastructure delivery and effective pro-poor community partnerships in any meaningful way. The guideline proposes a practical approach which is simple, yet effective in dealing with the complexities of the sanitation environment.

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