



International Finance Corporation

Environmental, Health and Safety Guidelines for

Wastewater Reuse

Wastewater reuse is recommended as a water resource conservation measure. Treated wastewater may often be recycled for manufacturing process use, cooling water systems or for irrigation.

All wastewater must be treated to meet IFC guidelines for liquid effluents which are applicable to the project and wastewater source. When the treated wastewater is used for irrigation purposes in areas which involve public use or unrestricted access by the public, the treated wastewater must also meet the following quality guidelines:¹

Although a number of treatment methods are available to meet these guidelines, chlorination should be used only with care. It is difficult to maintain a uniform and predictable level of disinfecting efficiency with chlorination; it is expensive; and chlorinated, organic by-products may be toxic, mutagenic or carcinogenic. The stabilization pond system of treatment is effective in meeting health criteria economically. However, primary sedimentation techniques and secondary biological treatment also can be used to comply with the above water quality guidelines.

Treated Wastewater Quality Requirements

<i>Parameter</i>	<i>Maximum Value</i>
Coliforms	Less than 100 MPN/100 ml(MPN = Most Probable Number)
Helminth Standard	< 1 viable intestinal nematode egg per liter (>99% egg removal)

¹ Source: Guidelines for the Safe Use of Wastewater and Excreta in Agriculture and Aquaculture, World Health Organization, 1989.