

Al-Malack, MH; Abuzaid, NS; Bukhari, AA; Essa, MH. 2002. Characterization, utilization, and disposal of municipal sludge: The state of-the-art. *ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING* 27 (1B):3-27.

Abstract: The rapid increase in sludge production, following massive investment in new wastewater treatment plant installations and upgrading of existing facilities, creates the need for adoption of economically and environmentally acceptable sludge management schemes, which take into account the worldwide growing interest in reuse and recovery possibilities. This paper presents a literature review concerning sludge generation, production, and treatment. Alternatives of sludge utilization and disposal are also presented. In addition, the paper provides information on the regulations on municipal sludge reuse and disposal, set by related agencies, mainly the United States Environmental Protection Agency (U.S.EPA). The regulations were formulated to protect the environment, the health of workers handling municipal sludge, and the health of the public.