شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها

علي هذه الأفلام قد أعدت دون أية تغيرات

يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of 15-25- c and relative humidity 20-40%

بعض الوثائق الاصلية تالفة

بالرسالة صفحات لم

ترد بالاصل

STRUCTURAL DESIGN OF RADIOACTIVE WASTE CONCRETE DISPOSAL VAULTS

By

Abdel-Salam Ismail Abdel-Fattah Al-Reefy

DHS in Reinforced Concrete Structures – Cairo University – 1999

B.Sc. in Civil Engineering – Cairo University – 1995

A Thesis Submitted to the

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Abstract

Structural and radiological requirements for designing radioactive waste concrete disposal vaults were reviewed. Besides, the details for functional design are also discussed. The ANSYS software was used for modeling the structure in order to predict the behavior of concrete disposal vaults throughout their long life span which can be as long as 300 years. A parametric study was performed to investigate the effect of important factors on the concrete vaults behavior. These factors include the reinforcement ratio, concrete characteristic strength, length to width ratio and concrete deterioration due to chemical ions attack.

The study also compares the results of the three-dimensional model developed here for the concrete underground tank to those of the simplified two-dimensional model, which is routinely used in practice. This comparison helped in determining the conditions at which the results of the two-dimensional model can be accepted for practical design purposes.

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