شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

شبكة المعلومـــات 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 اعدت دون آية تغيرات

يجب أن

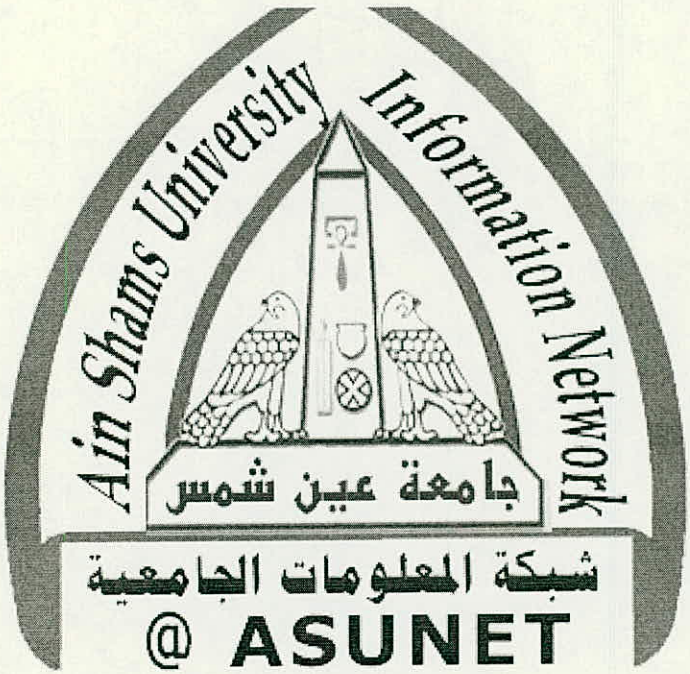
تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %

بالرسالة صفحات

لم ترد بالأصـــل



بعض الوثائق الأصلية تالفة

HAEMATOLOGICAL ASPET OF OCCUPATIONAL ELECTROMAGNETIC FIELD EXPOSURE

THESIS

Submitted in Partial Fulfilment for
Master Degree in
Emvironmental Medical Science

By

Amr Saad Mohamed Gawish
M.B.;Ch., DTM, and DEM.

Supervesors

Prof. Dr. Aly A. E.Massoud
Professor of Community,
Environmental, and
Occupational Medicine
Department .
Faculty of Medicine
Ain - Shams University

Dr. Moustafa H.S. Ragab
Lecturer of Medical
Department of
Institute of Environmental
Studies & Research
Ain - Shams University

Institute of Environmental Studies & Research
Ain - Shams University

1995

To my Parents,

Wife and Sister,

and my Children

ACKNOELEDGMENT
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I would like to express my profound and sincere gratitude and cordial appreciation to my professor Dr. Aly Massoud. Professor of Community , Environmental , and Occupational Medicine Department, Faculty of Medicine , Ain Shams University, father of this programme for his continuous encouragement and kind help.

My deep thanks to Dr. Moustafa Hassan Ragab. Lecturer of Medical Department of Institute of Environmental Studies and Research, Ain Shams University , for his generous assistance and intelligent suggestions, and for his valuable guidance and unfailing efforts during the whole period of this study.

I thank Dr. Mahamoud Sobeh El-Hawari ,Head of Medical Sector Department, Cairo Electricity Distribution Company. for his Assistance during the prepartion of this study.

I thank Dr. Engineer Fatama Moustafa the head department of international cooperation in Ministry of Electricity and Energy and Engineer Nahla Ibrahim , Research Department in Egyption Electricity Authority. for great assistance during the preparation of this study .

I thank professor Dr. Nazek Ibrahim Abdoul Fattah , Head of Hebrew Department , Faculty of Art , Ain Shams University, for a great help me in this study.

I would like to a great thank every worker from different department of Cairo North Power Station and in Cairo Electricity Distribution Company who was agreed to share and help me in this study.

Lastly , I would like to thank every one who has agreed to share and help me in preperation and production of this thesis.

List of Abbreviations

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Alternating Current	A C
Centimeter- gram-second (absolute system)	CGSm
Direct Current	D C
Electromagnetic Field	E M F
Electromagnetic radiation	EM radiation
Electron Volt	ev
Environmental Impact Assessment	E I A
Example	ex.
Extremely Low Frequency	E L F
Gauss	G
Giga Hertz	$G.HZ = 10^{9}$ HZ
Gram	gm
Haematocrite	HCT
Haemoglobin	Hb
Hertz	HZ
Infra Radiation	IR
Kilo Hertz	$K.HZ = 10^{3}$ HZ
Kilo Volt	K V
Kilo Watt	K W
Last Menstrual Period	LMP
Mean Corpuscular Haemoglobin	MCH
Mean Corpuscular Haemoglobin Concentration	MCHC

Mean Corpuscular volume	MCV
Mega Hertz	$M.HZ = 10^{6}$ HZ
Microwave	M W
Nano Meter	$n\ m = 10^{-9}$ m
Proportional Mortality Rate	PMR
Radiofrequency	RF
Red Blood Cells	RBS
Relative Risk	RR
Standerd Deviation	SD
Tessela	T
Ultraviolet	UV
Watt	W
White Blood Cell	WBC

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Introduction

INTRODUCTION

Numerous sources of electromagnetic fields (EMF) exist in nature ; in occupational moreover in residential environments. The demand of electricity and subseqently to exposure increasing and creating the new environments and health problems .

Epidemiological evidence suggested possible haematological disorders from exposure to EMF in extremly low frequency (ELF). ELF ranges from 0 - 300 HZ which includes the usual public electricity power supply frequencies ranging from 50 - 60 HZ. Several investigation have studied the effect of EMF on man. The result showed a raised risk of leukaemia especially acute myeloid leukaemia, (Coleman et al, 1989).

Moreover nervous, cardiac and blood disorders were also affected, (Stern et al, 1986). Contraversally, some studies failed to detect an excess of leukaemia cases among exposed to ELF, (Vagero et al, 1985 & Tornqvist et al, 1986) .

Interpretation of the evidence is made difficult by the complexity and upiquity of human exposure to man made ELF fields in modern society and by the difficulty of obtaining satisfactory retrospective measures of this exposure, (Coleman et al, 1989).

AIM OF THE STUDY