NEWSletter

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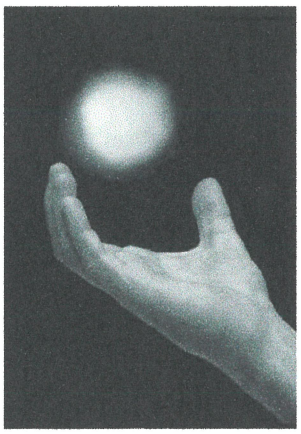
TRUTH& CONSEQUENCE



The past few decades have been a time of opportunities. Technological development has completely changed conditions for how we humans live, work and communicate. Still, we have only begun to scrape the surface of possibilities.

AT THE SAME TIME, NEW TECHNOLOGY AND NEW MATERIALS GIVE RISE TO IMPORTANT QUESTIONS ABOUT WORKING ENVIRONMENTS AND OUR HEALTH. CONCERN ABOUT ELECTROMAGNETIC RADIATION AND CHEMICAL EMISSIONS GROWS ALL THE MORE. SCARY SCENARIOS ARE MIXED WITH "CALMING" REPORTS. IT BECOMES MORE AND MORE DIFFICULT TO DECIPHER BETWEEN TRUTH AND SPECULATION.

ABOUT/CONTACT

The Healthy Office project aims at informing and educating others in questions concerning modern electrical environments and office environments. Our main aim is partly to eliminate/reduce chemical emissions from materials that are used in offices, and partly to reduce/eliminate radiation from electrical apparati in such environments.

The project is backed-up by a whole spectrum of interested parties, from national organizations to local companies. Swedish and international researchers, each leading experts in their respective fields, are also tied to this project.

The aim of the project is to unify a number of less concrete projects with the mass of knowledge existing among researchers. Such projects include ideas that are based on a knowledge of electromagnetic fields and how to minimize adverse effects on people exposed to these; classrooms and offices that have been sanitized from electricity giving us the practical opportunity of testing solutions that can give a better working environment; and more effective measuring techniques for frequencies of 50 Hz or more in cases where we have reason to suspect an adverse effect on biological systems.

A Word from the Project Leader

During the first and second quarters of the year a great effort has been made to find suitable partners for cooperating with us on this project. Through our contacts with the Swedish Union of Clerical and Technical Employees in Industry (SIF) and its project "Noll Risk i IT miljö" (No Risk in IT Environments), there is now greater scope for the projects than planned.

Also, competent support via researchers at Luleå University of Technology has been extremely helpful. By aiming our resources at modern electrical environments and making this clear to presumtive interested parties, the need of education and information has increased via this organization. Public debates about emissions and different health risks in the home environment and in public environments has given rise to more and more people recognizing the need of competency in this sphere. Guidelines from Boverket also show the need for taking measures and for the technical reduction of electric and magnetic fields within public organizations. Increased international interest in interior environments and products adapted for a pleasant and safe environment also opens up the market for more services in the above areas. In this regard, the project has made use of previous international experience gained by the Umeå School of Economics. And these studies continue. Empirically, the need of a knowledge of domestic engineering that takes health effects into consideration has lead to discussions outside our region and has resulted in a good dissemination of competence to national interests.

Lars Tornberg
Project Leader
The Healthy Office

FOCUS ON THE ENVIRONMENT

THE HEALTHY OFFICE PROJECT FOCUSES ON IMPORTANT PARTS OF THE ENVIRONMENT IN OUR OFFICES THAT HAVE SEEN GREAT CHANGES SINCE THE INTRODUCTION OF TOOLS CONNECTED TO IT-TECHNOLOGY.

In recent years new health problems have arisen at our places of work, and the connection between new technology, new building materials, increased emissions of electromagnetic radiation and chemical substances seem to be one of the reasons for some of these.

As the distance between work and liesure diminishes, many workers equip their homes with the same kind of technological equipment that they have at work.

The need of gathering information and conveying it to companies, municipalities and organizations has given rise to this project.

In cooperation with Luleå University of Technology (LTU) and the Swedish Union of Clerical and Technical Employees in Industry (SIF), among others, existing knowledge on this subject will be presented at seminars and training courses. This project has also given rise to side projects that aim at improving measuring techniques of electromagnetic fields and reducing chemical emissions from furniture in public environments. This assignment has gone to LTU's department in Skellefteå.

At my previous job with Liberel AB, I was responsible for developing technical solutions for companies with a lot of technical equipment. Office desks at a number of companies connected to the Stock Exchange in Stockholm contain some of The Healthy Office concepts with regards to electromagnetic radiation and chemical emissions.

With the wide scope of experience that exists in The Healthy Office project's reference group, it is possible to reduce or eliminate the risks of chemical emissions and electromagnetic radiation in today's IT-based activities.

Martin Andersson, AMA-Konsult AB in Skellefteå

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NEWS LETTER

THE DEPARTMENT IN SKELLEFTEÅ is one of Luleå University of Technology's 14 institutes. We put a lot of emphasis on wood research, but also have an interdisciplinary combination of higher education courses and embryos regarding research work in the spheres of computer technology, electric power and electric environments. The Institute has joined The Healthy Office project because of our competency in several of the related areas and because we believe that there is a strong potential for developing education, research and enterprise within this sphere of activities.Our proficiency in the sphere of wood, including how to connect technological systems with biological variation using trial designs and multivariator models, has been an important basis for this. We are also uniquely competent in the sphere of practical EMC – that is to say, how electrical apparati and other systems function together outside the controlled laboratory environment.

We live in a rapid and complex world. We introduce substances and electrical apparati into our environment that affect our bodies in a way that we have very little knowledge of. The only basis we can have for judging the possible effects that such substances and electrical apparati may have on our bodies is the possibility of measuring their magnitude in our environment. An absence of relevant measuring techniques means that we are unable to trace emissions in our environment to their sources or relate them to damaging effects. Today, it is possible to trace complex relations and to describe complex processes by means of soft multivariator models.There are existing advanced measuring techniques within different areas of research. The only problem is connecting these techniques to our knowledge of how biological systems function.

The Healthy Office project aims at connecting the mass of knowledge that exists among researchers with a number of small practical projects that are based on the concept of minimizing electromagnetic fields for people working in their vicinity. Classrooms and offices that have been cleaned from electrical fields give us the practical opportunity of testing solutions that can lead to better working environments. We are working on measuring techniques for measuring frequencies of 50 Hz and more, suspecting that these frequencies have an effect on biological systems.

As far as wood research at the Institute goes, we will be concentrating on developing a basis for wood products that fits The Healthy Office concept. These products will be adapted to the ecological cycle and give off lower emissions in the environment. First, we will be working with homogenous wood, and secondly wood products, improving their qualities by means of a processing technique that includes drying and heat treatment. Thirdly, we will be working with composite materials based on natural raw materials with wood as the basic component.

One of the long-term goals for work at our Institute, connected to this project, is to establish a laboratory environment with a practical application in combination with relevant measuring techniques so that we can offer an educational programme dealing with electrical environments on a wide interdisciplinary basis.

The following partial projects within the EU project are being carried out today by the Institute in cooperation with companies close by:

The Instrument Pool. Co-financing and joint use of measuring instruments.

A Computer working place that is electrically sanitized. Practical studies of local and external sources of interference at an individual working place and how such interference is affected by different installations.

A classroom that is electrically sanitized. The construction one of the floors where the whole electric network is planned together with other networks for a better environment.

Computers. Testing screens and computer networks outside the laboratory environment.

Olle Hagman, Prefect of LTU's Institute in Skellefteå

ELECTRICAL SANITATION ACTIVITIES

PRACTICAL EXAMPLES OF ENVIRONMENTAL ADAPTABILITY WITH REGARDS TO ELECTRICAL SYSTEMS AND CHEMICAL EMISSIONS

ARBETSLIVSTJÄNSTER IN SKELLEFTEÅ IS STUDYING HEALTH COMPLAINTS AND HYPERSENSITIVITY RELATED TO THE ENVIRONMENT VIA ELECTRICAL SANITATION ACTIVITIES IN A PROPERTY IN THE HOUSING AREA OF ANDERSTORP IN SKELLEFTEÅ.

One of the aims of this property is to investigate the effects of an environment free of electricity on persons who have been stricken with so-called hypersensitivity to electricity.

Hypersensitivity to electricity is a growing problem. There are an unknown number of unrecorded cases of people who suffer from different symptoms at workplaces with electric/electronic apparati and instruments or who spend time in environments surrounded by electricity. Researchers are not in agreement as to the reasons for these health complaints. However, the fact remains that there are a lot of people who are off work sick for long periods on account of this.

In their report on hypersensitivity to electricity, Arbetslivstjänster offer living quarters and occupational testing for a period suited to each individual in an electrically sanitized environment in this property in Skellefteå.

This property, which is the principal part of these activities has eight flats where measures have been taken to reduce electromagnetic fields and interference from electricity and telephone networks on the outside to a minimun.

A lot of consideration has been given to reducing exposure to chemical emissions of substances that are suspected of triggering off hypersensitive reactions. Computers and communications systems have been equipped with technique that reduces radiated and electric wire conducted interference from electric and magnetic fields. The lighting system and power distribution in the property are also carefully constructed to achieve a good electric environment.

During the past year test activities have been carried out and supplementary measures have been taken, and these electrical sanitation activities were inaugurated on 1 September 1999. Speakers at the inauguration were Mari-Ann Krantz, chairwoman of the Swedish Union of Clerical and Technical Employees in Industry, Olle Johansson, university lecturer on experimental dermatology at the Caroline Institute and Bert Öhlund, Chairman of the Board at Skellefteå Kraft.

We will be continuing work with The Healthy Office project in Skellefteå and applying the experiences we have already gained in this project on a greater scale.

Jan-Ivar Eriksson
Arbetslivstjänst AC

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