

## Silencing inconvenient research in Sweden

### The death of the No-Risk and Healthy Office projects

In Memoriam by Don Maisch PhD and Prof. Olle Johansson

“Low dose exposure to chemicals and electromagnetic radiation from increasingly advanced electronic equipment is apparently one of the work environment risks in offices in the twenty-first century. How great the health risks are is not yet known. Researchers who want to find out are kept back by constant lack of funding. In this situation, the role of unions is important, partly with respect to demanding more adequate research in this field, partly to assert at least the principle of prudent avoidance – if they don’t dare to demand a zero-risk goal.”

Former TCO journalist and author Gunni Nordström in “The Invisible Disease”

During the 1990's the Swedish trade union movement, notably the Swedish Confederation of Professional Employees (TCO) and Union of Clerical and Technical Employees in Industry (Sif) led the world in actively tackling, and working on solutions for the growing problem of both chemical and electromagnetic pollution in the workplace. At that time, Sif was the largest trade union for white-collar workers in Sweden until it merged in January 2008 with another trade union (HTF) to form a new organization, Unionen. Unionen is currently Sweden’s largest trade union on the private labour market and the largest white-collar union in the world.

The TCO label is known internationally for its precautionary environmental standards for computer monitors that place limits on both electromagnetic radiation (EMR) and chemical emissions (TCO’92, TCO’95, TCO’99 and TCO’03). Although not eliminating EMR and chemical emissions from computer monitors, it was ground-breaking in that it was the first case of a union organization, representing both members and consumers, successfully influencing manufacturers to improve the design of their products to reduce potentially harmful emissions. TCO recommendations have become an international market standard, which all computer monitor manufacturers do their best to comply with to be TCO-Certified.<sup>1</sup> The TCO monitor standard is quite extensive, covering the environment, ergonomics, usability, emission of electric and magnetic fields, energy consumption and electrical and fire safety. Restrictions are placed on the use of heavy metals, brominated and chlorinated flame-retardants, CFCs and chlorinated solvents that can outgas into the office environment during operation. There are also requirements for eventual recycling as well as the manufacturer to have an environmental plan in place.<sup>2</sup> The TCO philosophy is that workplace environmental risks should be eliminated as far as possible.

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<sup>1</sup>Nordström, G. *The Invisible Disease: The Dangers of Environmental Illnesses caused by Electromagnetic Fields and Chemical Emissions*, 2004, Chapter 17, *TCO-labelling and the zero risk goal*.

<sup>2</sup> Digital Silence, Selecting a Monitor: MPRII vs. TCO’99, <http://www.d-silence.com/feature.php?id=247>  
Accessed June 5, 2007

Following on from TCO initiatives, Kjell Fransson at Sif initiated an inquiry into hypersensitivity to electricity. At about this time Åke Bergman at the Stockholm University unexpectedly found traces of brominated flame retardants in the blood of Swedish office workers. When this was reported in the Swedish media a number of people who claimed that they were electrohypersensitive contacted Bergman, requesting that he test their blood. Testing by one of Bergman's team found that the electrohypersensitive people did have these chemicals in their blood suggesting that electrohypersensitivity, in some cases, may have a chemical element.

As a result of these findings, Bruno Hagi who worked specifically on work environment-related issues at the central Sif headquarters, became interested. Hagi, concerned that the information technology (IT) workplace may be creating new and serious risks to health, initiated the Sif No-Risk project, enlisting the involvement of a team of researchers, including Martin Andersson from LIBEREL AB<sup>3</sup> and Assoc. Prof. Olle Johansson from the Karolinska Institute.<sup>4</sup>

Similar to the TCO philosophy, the Sif No-Risk project aimed at practical measures to reduce or eliminate EMR and chemical emissions in the modern office but took the concept further to include all aspects on the modern IT office. To quote from the Sif publication, *No-Risk in the IT environment* (1998):

The NO RISK project devised by Sif for the IT environment is one example of new thinking, a completely new model for applying trade union influence to development by using the "consumer power" of the members. Only products and equipment that can meet tight environmental requirements shall be considered when negotiating, with a view to improving the working environment for the employees, while reducing Nature's burden.<sup>5</sup>

In order to gain a better understanding of the extent of the Sif No-Risk project the following is extensively quoted directly from various 1990's Sif documents. Unfortunately these publications are no longer available from Sif's successor Unionen and there is no mention of the No-Risk project on Union's website. It is as if it simply never existed for reasons examined in this paper.

1993: Sif carried out an extensive enquiry into hypersensitivity to electricity among its members. The reason for the enquiry was increased concern and problems from an ever-increasing use of electricity. All Sif members were afforded opportunity to describe symptoms of hypersensitivity to electricity. A club questionnaire was also included with questions to union sections, white collar worker clubs and work place ombudsmen. At the end of 1994 Sif presented a final report in which the responses to the questionnaires had

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<sup>3</sup> LIBEREL AB was a Swedish office design company specializing in environmental office place sanitation – designing offices and office furniture to reduce or eliminate both chemical and EMR emissions in the office environment.

<sup>4</sup> Private communication with a number of people directly involved at the time. Also see Nordström G, *The Invisible Disease*, O Books, 2004, page 217-218.

<sup>5</sup> *No Risk in the IT environment*, SIF, 1998

been scientifically processed. According to the report many Sif members were affected. Up to one in ten white collar workers noted some form of trouble caused by electrical apparatus. An estimated 6,700 cases of hypersensitivity to electricity were found among the union members.

1995: A twelve-page summary, *Hypersensitivity to electricity*, was made of the final report. It attracted considerable attention and was translated to German and English. In easily-understood form it presented facts about hypersensitivity to electricity, who is affected by it, where and how symptoms appear, and a plan of action.

1996: Sif compiled a new report. This aroused considerable interest since the results in 1993 had been so alarming. Had the members' problems increased or decreased? The new report, *Hypersensitive in IT environments*, shows that the problems have increased. The number of Sif members who complained that they have serious or extremely serious problems had doubled in two years.<sup>6</sup>

In 1998 Sif published the 35 page report, *"No Risk in the IT environment"*  
Section headings from the No Risk document:

- The IT society is creating new and serious risks to health
- New technology provides new possibilities but also new problems
- What does NO RISK mean in the IT environment?
- Why is NO RISK needed in the IT environment?
- It's the invisible health risks that are causing problems nowadays!
- An electrostatically charged speck of dust can contain all this
- Today's electrical power supply units generate high frequencies which increase the risks
- Our most commonly used strip lighting gives out large amounts of unnecessary emissions and radiation
- Good equipment is already on the way to presenting a NO RISK environment
- How dangerous are our mobile and cordless telephones?
- Stress often lies behind the most common reasons for sickness absence
- Is NO RISK possible or just plain ridiculous?
- High environmental demands favour exports
- It's a matter of prevention, prevention and even more prevention!
- The needs of our members started the build-up of knowledge and gave birth to the idea of NO RISK in the IT environment
- The NO RISK project paves the way to ensuring that obvious health risks shall not be present in the future office environment.<sup>7</sup>

In 1999 Sif initiated the *"Healthy Office project"* in partnership with the Luleå University of Technology (LTU). The project aimed at implementing the points

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<sup>6</sup> *Hypersensitive in IT environments: Information concerning problems caused by hypersensitivity to electricity. Facts and advice to members of SIF*, SIF, 1996

<sup>7</sup> *No Risk in the IT environment*, SIF, 1998

raised in the Sif “No Risk” publication. Many other organisations were involved in the project, including Arbetslivstjänster AB, a private company owned by several trade unions. The company investigates and rehabilitates workers who have suffered various work-related injuries, both physical injuries, mental stress, as well as functional impairments.<sup>8</sup>

To quote in part from *The Healthy Office project* newsletter.

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.

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.

Lars Tornberg, Project Leader of The Healthy Office project, emphasizes the importance of organizations such as Sif acting as a driving force in the development of projects such as this. With their project, No Risk in IT environments, Sif stands for a new way of thinking that will give new pace to product development connected to environments that frequently convey information, says Tornberg.

Providing information to the community is made easier when the project has this platform to work from, says Lars Tornberg. In this way, we hope to contribute to spreading objective information and reaching a better understanding of the problems that exist concerning workplaces that give off chemical emissions and electromagnetic fields, says Tornberg.<sup>9</sup>

In 2001 Sif published a NO Risk update in 1998, in Swedish only with essentially the same information as the 1998 version.

### **2007: Sif’s new priorities in a changing political climate**

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<sup>8</sup> Eriksson, J.I., Electrical Sanitation Activities, *The Healthy Office Newsletter*, No.1, 1999.

<sup>9</sup> Tornberg, L, (ed *The Healthy Office Newsletter, Truth & Consequence: News & Information from the Healthy Office*, No.1, 1999

In spite of the extensive work that had been done by Sif throughout the 1990s, no mention of any of the above documents, or the outcome of the Healthy Office project was on the Sif website in 2007.<sup>10</sup>

On May 30, 2007, Assoc. Prof. Olle Johansson a former member of the Sif No-Risk project rang Sif headquarters asking for copies of the 1990 publications. When asked for copies of the before mentioned Sif publications the reply was that they had run out of copies and no further printing was planned. As for the Healthy Office Project, they could not find it and did not even know what it was.

However, Sif's one English publication available on its web site at the time was titled: *Sif: Sweden's Leading White Collar Union* (2005) did have a section titled, *The work environment*. To quote from page 7:

Objective: The work environment should promote health, development and security in order to ensure the health and well-being of Sif's members at work. Sif should therefore: Support the members so that they gain a greater degree of influence over their work situation. Sif should offer services and tools that increase the members' capacity and ability to influence their work environment. Influence companies to invest in preventive work environment measures, particularly with regard to the psychosocial work environment, where the question of working hours is also an important factor. An integrated approach to the work environment contributes to the development of the companies. Sif should recruit more local work environment representatives and develop the system for regional work environment representatives. Sif should also focus on work environment training for managers, work environment representatives and employees so that everyone can actively contribute to systematic efforts to improve the work environment. Influence society so that the preconditions for a healthy working life are improved. Sif should work for greater resources for regional work environment representatives, training on the work environment and corporate health services. By co-operating and exerting influence, nationally and internationally, Sif should involve employers, authorities and other players in the work to improve activities concerning the work environment.

This 2005 Sif publication mentioned nothing about chemical and EMF emissions in the work environment and nothing more was said on the Sif website about these two previously high profile environmental issues.

What was apparent in the 2005 Sif documents was that the previous emphasis on chemical and electromagnetic hypersensitivity in the office environment had been replaced with an emphasis on the "psychosocial work environment". This

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<sup>10</sup> <https://www.sif.se/Default.aspx> Accessed May 20, 2007

<sup>11</sup> English version is available on the SIF website at: <https://www.sif.se/UploadFiles/Dokument/Om-Sif/Bestall-och-ladda-ned/Pa%20andra%20sprak/Swedensleadingwhitecollarunion2005.pdf> Accessed May 28, 2007

would suggest that all those hypersensitive employees identified by Sif investigations in the 1990's were now considered as being a psychosocial problem. This is backed up by investigative journalist Gunni Nordström in *The Invisible Disease* that the before mentioned environmental diseases had been replaced by the emphasis on psychosocial problems and stress at workplaces.<sup>12</sup> This may be the case when you consider that Sweden has one of the world's best workers compensation laws for work-related illnesses. However, if an employee is sick due to "psychosocial" reasons there's no chance that they will receive compensation for their illness.

Intrigued with what had happened to Sif's earlier environmental concerns the authors of this paper made further inquiries with a number of contacts in Sweden who had worked on the No-Risk and Healthy Office Projects to find out why such a radical change has happened. Was it because the Healthy Office Project had solved those chemical and EMF problems and it was no longer an issue in the Swedish workplace?

The reality, however, turned out to be quite the opposite, unfortunately. According to communications with a number of people who were involved with both TCO and Sif initiatives in the 1990s, starting about the time Bruno Hagi was forced to leave Sif in the early 2000's, Sif's management decided to end the union's involvement with these issues due to "political and labour-market policy considerations". Concerns were also raised at the time by a number of Sif and TCO members that Sif was being co-opted by the Swedish telecommunications industry.<sup>13</sup>

An unfortunate coincidence sparked off Hagi's departure from Sif as head of the No Risk project. When a major Swedish newspaper interviewed Hagi about the Sif No Risk project. Hagi mentioned in the interview his concerns over possible dangers from DECT phones and that he felt they should be removed from offices. By chance, this hit the public just as Ericsson was about to launch a public relations event about it's new DECT phone systems. Even though Hagi knew nothing of Ericsson's plans, Ericsson management thought Hagi had planned this specifically to sabotage the Ericsson DECT promotional event. As a result of the newspaper article Ericsson cancelled the event and sent a delegation of management and technical staff to complain to Bruno's supervisor at Sif. The Ericsson delegation explained why they considered Hagi was wrong about DECT phones because the system met all standard requirements. They also claimed that Hagi's actions in purposely attacking Ericsson (so they thought) was damaging the reputation of Sif with the industry. Bruno's supervisor, impressed by the Ericsson presentation, took action and soon Bruno Hagi had no choice to leave Sif.<sup>14</sup>

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<sup>12</sup> Nordström, op. cit., page 218.

<sup>13</sup> Correspondence in confidence, May 30, 2007

<sup>14</sup> Interview with Bruno Hagi by Per Segerback, June 6, 2007

Another main driver of the EMR/chemical emission environmental issues, besides Hagi, was Per-Erik Boivie, head of TCO's development unit<sup>15</sup>. They both ended up being dismissed only to be replaced by new managers who were opposed to the No-Risk idea. After Hagi and Boivie were gone, the issues of EMR and chemical emissions were downplayed and replaced with an emphasis on the psychosocial work environment where if an employee is sick for unknown reasons the sickness must be psychological. Although *TCO Development*, a company owned by TCO, was still interested in the EMR and chemical problem, a lack of funding for research had effectively put a stop to any further research on the potential hazards of EMR and chemical exposures in the workplace.<sup>16</sup> By 2005 these occupational health and safety issues had essentially become taboo.

One is reminded of the words of the French philosopher Michael Foucault when he wrote about "the excluded" in the academic world:

That which is not spoken of – it is taboo. So that no one steps over the boundary, there are guardians who, via lobbying or mobbing, disarm those who are guilty of the unacceptable. At the same time this means that the free furtherance of knowledge, the prime task of researchers, is hindered.<sup>17</sup>

### **Silencing other inconvenient research in Sweden**

The Swedish National Institute for Working Life (NIWL), established by a mandate from the Ministry for Industry, Employment and Communications, has been involved in workplace environment research for many decades, contributing immensely to the understanding on the many factors in the work environment impact on worker's health. Many of the now widely accepted theories concerning occupational health and safety issues in the workplace originated through scientific studies undertaken by NIWL scientists. The many contributions by NIWL have greatly influenced the work environment in Sweden. The Institute has long encouraged a dialogue between industry, government and the work force.<sup>18</sup>

A further blow to continuing research on occupational health and safety in Sweden came to light in December 21, 2006 when the new conservative Swedish government announced that as on July 1, 2007 the government intended to close down the Institute. This announcement "sent a shockwave through the international occupational health research community" and was termed a "deplorable turn of events" in an article in *Occupational Environmental Medicine*.<sup>19</sup> Institute staff were notified on Sept 18, 2007 that all staff would receive notice to quit on January 1, 2007. According to Annika Härenstam, Professor in Work

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<sup>15</sup> Nordström, *ibid.* p. 217.

<sup>16</sup> Correspondence in confidence, May 30, 2007

<sup>17</sup> Nordström, *op. cit.* p. 171

<sup>18</sup> ENETOSH notice: "Shutdown of the National Institute for Working Life (NIWL) in Sweden" [http://www.enetosh.net/webcom/show\\_article.php/c-29/nr-35/p-1/i.html](http://www.enetosh.net/webcom/show_article.php/c-29/nr-35/p-1/i.html) Accessed June 2, 2007

<sup>19</sup> P. Westerholm, Closing the Swedish National Institute for Working Life, *Occup. Environ Med.* Vol. 64. pp. 787-788, 2007.



Organisation at the Institute, staff were shocked at the decision which meant that Sweden would no longer have a platform for acting at the European and international level in the future. The government's argument for the elimination of the Institute was that cutting taxes was the highest priority and work life issues was better left to the "partners on the labour market", and not the government. The government's preferred option was for all research to take place at universities, with research funded by competition, mainly through centres of excellence.<sup>20</sup> The problem with so-called centres of excellence, however, is that they tend to be academic partnerships with the industrial sector, inevitably creating conflicts of interest and bias in the centre's ability to objectively weigh up new scientific knowledge in areas that may threaten the "bottom line" of the industry partner.<sup>21 22</sup>

In relation to telecommunications, the NIWL was significantly involved in research to determine the extent of possible health risks associated with mobile phone use. The following is just a brief listing of the large body of relevant Swedish research:

A 2002 research paper by Lennart Hardell *et al* at the University Hospital of Orebro, Sweden in cooperation with Kjell Hansson Mild from NIWL, examined 1617 brain tumour patients aged 20-80 years and who had been diagnosed with a brain tumour between January 1997 to June 2000. They found an increased risk with analogue phone use and an increase in risk after 10 years usage. The risk also increased for tumours located in the temporal area on the same side of the brain as where the phone was placed when making calls. The highest risk was for acoustic neurinomas.<sup>23</sup> In a later 2006 study on the use of cellular and cordless telephones and the risk for malignant brain tumours. An increased risk was seen for both cellular and cordless phones, highest in the group with an over 10 year mobile phone usage.<sup>24</sup> In another 2006 paper, this time examining benign brain tumours, they found a significantly increased risk of acoustic neuroma with the use of analogue phones. In a 2007 paper by Hardell, Mild and colleagues, that evaluated brain tumour risk among long-term users of cellular telephones, they found a consistent pattern of increased risk for acoustic neuroma and glioma for 10 years and over mobile phone use. The risk was

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<sup>20</sup> Letter to the Center for Social Epidemiology from Professor Annika Härenstam, NIWL, October 10, 2006. <http://www.workhealth.org/news/nwannoun.html> Accessed June 3, 2007

<sup>21</sup> Maisch D, Spin in the Antipodes: Political and corporate involvement with cell phone research in Australia, in *Secret Ties*, Walker M (ed) in press.

<sup>22</sup> For an in-depth analysis of the problems of industrial/academic research partnerships see Sheldon Krimsky's *Science in the Private Interest*, Rowman & Littlefield Publishers, Inc. 2003.

<sup>23</sup> Hardell L, Hallquist A, Mild K H, Carlberg M, Pahlson A, Lilja, A, Cellular and cordless telephones and the risk for brain tumours, *Euro Jour Of Cancer Prev*, Vol. 11, Issue 4, pp 377-386, Aug. 2002

<sup>24</sup> Hardell L, Carlberg M, Hansson Mild K. Pooled analysis of two case-control studies on use of cellular and cordless telephones and the risk for malignant brain tumours diagnosed in 1997-2003. *Int Arch Occup Environ Health*. Vol. 79, No.8, pp. 630-9. Sept. 2006 Epub Mar 16, 2006



highest if the phone was held on the same side of the head as the tumour. (ipsilateral exposure).<sup>25</sup>

What this body of this research was finding was a consistent pattern of an increased risk of both benign and malignant brain tumours for people who used a mobile phone with an increasing risk with prolonged usage. Obviously this type of research represented the potential for a financial risk for both the Swedish cell phone industry and a conservative Swedish government - as did the No Risk and Healthy Office Project.

Throughout the 1990's Swedish trade unions, notably Sif, were world leaders in promoting worker occupational health and safety protection from EMF and chemical workplace hazards – and spreading the word internationally. Now those research initiatives have been cut short for reasons quite unrelated to science and at a great potential loss to the health of office workers internationally. The elimination of the Sif No Risk and the Healthy Office Projects would seem to be the result of an informal cost/benefit analysis where the possible costs to Swedish industry were weighed as being of greater importance than the potential benefits of continuing research aimed at insuring adequate worker health protections.

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<sup>25</sup> Hardell L, Carlberg M, Söderqvist F, Mild KH, Morgan L, Long-term use of cellular phones and brain tumours: increased risk associated with use for > or =10 years, *Occup Environ Med.* Vol. 64, No. 9, pp. 626-632, Sept. 2007, Epub Apr 4. 2007.