

# EMF: Asbestos of the 21st Century?

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**EMF claims of all types are likely to increase significantly in the future, and insurers, banks, utilities and other potential «deep pocket» defendants would be well advised to consider the action they should take now. They should not wait until conclusive evidence is established, as the social economic consequences are likely to be enormous.**

Long Tail latent disease has been the underwriting nightmare of the past 20 years. Asbestos, Industrial deafness, gradual pollution, breast implants and now tobacco are all examples of where Insurers/Reinsurers are left to pay the bill. As a consequence, liability insurers are constantly trying to predict the next

problem area. A number of studies have suggested that Electro-Magnetic fields could provide this exposure. However, in an attempt to establish a link between Electromagnetic fields and cancer, the evidence to date has proved both inconsistent and therefore inconclusive.

In the discussion of «electromagnetic fields» it is important to identify exactly what fields are being discussed. Electric fields exist around any object that is electrically charged, and is directly proportional to the voltage. Magnetic fields only exist around an object that is conducting electricity. The magnitude of the field is proportional to the current that flows through it. For instance the wires leading to a desk lamp will display an electric field even when the lamp is turned off. Only when the lamp is turned on is a magnetic field produced too.

Due to the ability of magnetic fields to readily permeate most materials, they have been alleged to have caused various health symptoms. These include tiredness, headaches, cardiovascular effects and loss of sleep (a-thermal effects). This has led to a number of international research projects, none of which was able to confirm any connection. Some later epidemiological studies (where populations are studied) have suggested that there may be a link between the incidence of childhood cancer and close proximity to power lines.

Despite nearly 20 years of research into EMFs however, scientific opinion remains divided; as can be seen from some of the latest studies produced.

Dr Pia Verkasalo, from Helsinki University, examined the medical records of almost 400,000 Finnish adults who lived near electricity lines at some time between 1970 and 1989. Checks for 20 major types

of cancer came up with 8,415 cases. This compares with 8,587 cases which could be expected in the general population. Dr Verkasalo concluded «We found no major increases - or no increases at all in the risks of cancer associated with magnetic fields of high voltage power lines. The results suggest strongly that typical residential magnetic fields generated by high voltage power lines are not related to cancer in adults».

A further review was conducted by the US National Research Council of more than 500 studies carried out over the past 17 years into the effects of EMFs. The council concluded that there was no clear evidence that exposure to EMFs is harmful.

The New Scientist magazine earlier this year published a report by Bristol University into the link between EMFs and Radon Gas; a dangerous combination which was described as potentially lethal. The study by Professor Henshaw and his team at Bristol shows the promise of research which may eventually establish a link between the presence of EMFs from power cables, and various cancers in circumstances where the known carcinogenic substance, radon, is present.

Radon is a naturally occurring radioactive substance. Researchers at the University have shown prima facie results that suggest that the radioactive decay products of radon become mobile in the presence of EMFs and are thus more likely to adhere to the airways and the skin than would otherwise be the case, but only a weak statistical link has been shown between exposure to background levels of radon and cancer.

At its simplest, Dr Henshaw's work points towards the presence of EMFs as activating the radon particles so that they become mobile,

making them more easily ingested through inhalation.

If this theory achieves scientific accreditation it will only be a matter of time before, in a suitable case, a civil court finds that the element of causation exists.

This naturally brings us to the legal position. Liability in negligence claims depends on whether the damage was preventable in the first place. Few legal systems are asking insurers or their insureds to pay for damage which was unavoidable. At least that is the theory. In practice, the courts, particularly in the USA, have cheated on this principle. In the UK, the 1989 Electricity Act states that for a plaintiff to succeed against a generator or distributor it would be necessary to establish both negligence and causation. Therefore, if causation is ever established, this will of course leave the questions of negligence to be determined on evidence as to the 'state of the art'. To-date actions brought in the UK, Australia and The States have all failed.

The attitude of insurers to EMFs has been the subject of much debated in recent years. This has been triggered by a growing awareness of a potential liability. Certain prominent reinsurers took the view that silence on EMFs was the right response. The argument being that to exclude it going forward admitted that it had been covered previously. This line of argument claimed EMFs were not covered because they were a form of pollution and by virtue of fact that they were not sudden/accidental, unintended or unexpected were not covered. They were not an accident nor a fortuitous event and were therefore not covered by the operative clause of a liability policy.

Not all insurers/reinsurers agreed with this view, arguing that EMFs should be excluded from all risks with a major perceived exposure.

A third group evolved which eventually won the day. Proposing EMFs to be an insurable risk with cover granted on a **Claims Made** wording, with a single aggregate limit of liability. Specific **Claims-made** EMF sections are routinely

given to electricity companies, and reinsurers are prepared to provide cover.

It must also be remembered that, the risk is civil liability for EMF-induced damage, and it may be that the risk can be managed by both insurer and insured in a pragmatic way, which does not necessarily lead to the kind of debacle which the asbestosis crisis brought about for everyone. Against that background, the following suggestions should be borne in mind:

- If indeed we are about to see a change in the state of the art, it should not be left to lawyers and judges to determine exactly when that change took place, by a process of historical archaeology in years to come.

- Both insurers and their insureds have an interest in seeing that, if and when the appropriate date is reached, this is clearly documented - for instance by confirmation in an Act of Parliament - to eliminate the possibility of retroactive liability for cases of earlier origin.

The conclusion from an insurance perspective to date is that insurers, conscious of earlier problems, with multiple years of account being involved in the same claim, are trying to manage and control the potential exposure. If, and it is a big "If", a causal link is ever established, liability will be capped within one underwriting year of account. In nearly all common law systems, tortious liability is predicated on the basis of "fault"; and just because these rules have been violated by the Judicial systems of many US states does not mean that the rest of the world will adopt the same response. EMF claims of all types are likely to increase significantly in the future, and insurers, banks, utilities and other potential "deep pocket" defendants would be well advised to consider the action they should take now, in order to manage what is currently only an alleged risk. They should not wait until conclusive evidence is established, as the social economic consequences are likely to be enormous.