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## Volume 6 - Issue 5, 2006 - Letters to the Editor

### EU Directive and MRI Scanning: The Position in the UK

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In follow-up to your news piece from Prof. David Norris (Volume 6, Issue 3), this is the position in the UK at present. In 2004, following an extensive review of the science and after carrying out a wide consultation, the NRPB (now the Radiation Protection Division of the Health Protection Agency, HPA) recommended adoption in the UK of the 1998 guidelines of the International Commission on Non-Ionizing Radiation Protection (ICNIRP) for EMF exposures. This recommendation was accepted by the UK Government.

The Directive (2004/40/EC) of the European Parliament and Council on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (electromagnetic fields) incorporates some of the 1994 and 1998 ICNIRP guidelines. HPA is well aware of concerns amongst the medical profession that the Directive might restrict some practices that utilise MRI scanning. It is important that such concerns are addressed, preferably with evidence-based research on the magnitude of any problem. This will require a careful assessment of the exposures encountered by staff during MRI scans. Three research projects are already underway to establish the extent of the interaction between magnetic fields and MRI workers, and the European Commission will soon be publishing a tender for additional research proposals.

The UK MRI community has raised questions about the basis of ICNIRP guidelines for low frequency magnetic fields, particularly the limiting physiological response. A review of guidelines for static magnetic fields and time-varying fields of frequencies up to 100 kHz is currently being undertaken by ICNIRP. These fields and frequencies include those produced by MRI scanning equipment.

The implementation of the Directive in the UK is the responsibility of the Health and Safety Executive (HSE). Neither HPA, nor its predecessor NRPB, were involved in the legislative and negotiation process related to the development and agreement on the EU Directive. This was the responsibility of UK Government Departments and regulatory bodies.

More information can be found on the following websites:

1. A F McKinlay, S G Allen, R Cox, P J Dimbylow, S M Mann, C R Muirhead, R D Saunders, Z J Sienkiewicz, J W Stather and P R Wainwright (2004). Review of the Scientific Evidence for Limiting Exposure to Electromagnetic Fields (0–300 GHz), Documents of the NRPB: Volume 15, No. 3, 3-209.

[http://www.hpa.org.uk/radiation/publications/documents\\_of\\_nrpb/abstracts/absd15-3.htm](http://www.hpa.org.uk/radiation/publications/documents_of_nrpb/abstracts/absd15-3.htm)

2. NRPB (2004), Advice on Limiting Exposure to Electromagnetic Fields (0–300 GHz) Documents of the NRPB: Volume 15, No. 2, 1-35.

[http://www.hpa.org.uk/radiation/publications/documents\\_of\\_nrpb/abstracts/absd15-2.htm](http://www.hpa.org.uk/radiation/publications/documents_of_nrpb/abstracts/absd15-2.htm)

3. MRI – EC Physical Agents Directive on HPA Website at [http://www.hpa.org.uk/radiation/understand/information\\_sheets/mri\\_ec\\_directive\\_2004\\_40\\_ec.htm](http://www.hpa.org.uk/radiation/understand/information_sheets/mri_ec_directive_2004_40_ec.htm)

4. ICNIRP website at <http://www.icnirp.org/workplan.htm>

5. HSE website at

<http://www.hse.gov.uk/radiation/nonionising/electro.htm>

6. EU Directive at

[http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32004L0040R\(01\):EN:HTML](http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32004L0040R(01):EN:HTML)

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Published on : Thu, 30 Nov 2006