Electromagnetic field assessment

Demonstrating and assuring compliance of electromagnetic fields in work environments

The 2013/35/EU Directive, and its transposition into national law, places an obligation on employers to limit employee exposure to electromagnetic fields (EMF). But how can a site demonstrate its compliance? And how do you resolve discrepancies? ENGIE Laborelec offers a low-cost electromagnetic field assessment service. We make recommendations on how to reduce exposure where it's needed, and we can also help optimize the design of new equipment and installations.

EMPLOYER RESPONSIBILITY

All EU member states have now transposed the 2013/35/EU Directive into national legislation, confirming employers' **legal obligations** to limit employee exposure to electromagnetic fields and to assess exposure levels in all relevant areas of the site.

But how is it done? Every possible EMF source, whatever the frequency, must be identified. Specialist measuring equipment and expertise is then needed to assess and document the associated exposure levels.

DEMONSTRATING COMPLIANCE

ENGIE Laborelec does the job for you. The measurement campaign usually takes half a day, during which our specialists investigate the site, **identify** potential EMF sources, **measure** the exposure level to workers and passers-by, and **document** and archive the results. The service is **a low-cost solution to demonstrate compliance** with applicable legislation, measuring EMFs of all relevant frequencies. We can also advise on how to reduce exposure levels in the event of non-compliance.

BENEFITS

- **Reporting compliance to applicable legislation**
  Our service facilitates compliance reporting. We document and archive all measurement results for future use where required.

- **No hidden compliance issues**
  Our specialists identify and measure all relevant electromagnetic fields on your site, ensuring there are no hidden compliance issues.

ADDED VALUE

- **Calibrated equipment for the entire spectrum**
  We have the equipment necessary to measure electromagnetic fields of all frequencies between 0 Hz and 20 GHz. Measurement equipment is regularly calibrated to ensure the accuracy and validity of results.

- **Extensive experience in the field**
  ENGIE Laborelec experts have many years of experience in the field, identifying and measuring EMFs in industrial and office environments, both large and small, including power stations, chemical plants and office buildings in proximity to HV stations.

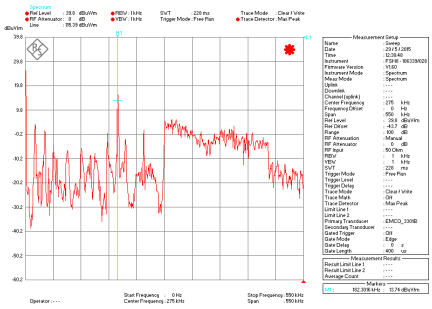
How it works

IDENTIFYING

Our first task on site is to identify all possible EMF sources. This will include obvious AC sources such as HV stations and dielectric heating installations, but will also cover the less commonplace DC sources such as alternator excitation systems or permanent magnets on conveyer belts. No potential source is overlooked.

MEASURING

We carefully measure the potential exposure level of all electromagnetic fields in normal operating conditions using equipment appropriate to the source and frequency spectrum.



DOCUMENTING AND ARCHIVING

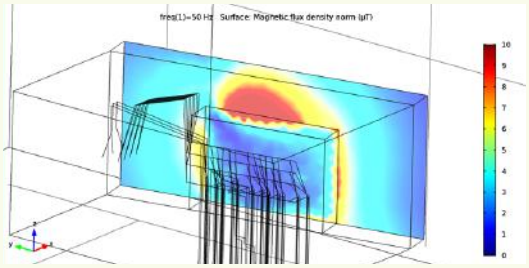
All measurements are systematically documented and archived in compliance with the applicable regulations so that you can compile a comprehensive report on your site's EMF landscape when required.

ANY DISCREPANCIES?

If measurement reveals any discrepancy between an EMF exposure and the applicable regulation, we offer a follow-up service to resolve the issue.
We further investigate the EMF source and give advice on how to **improve the design** to reduce the EMF impact. Where needed, we propose specific **shielding** solutions.

DESIGN ASSISTANCE

In addition to the measurement service, ENGIE Laborelec offers EMF-related assistance at the design stage of new equipment and installations. Using state-of-the-art software, we model the equipment and calculate the EMF at every point in the surrounding area. Based on this, we can make recommendations to optimize the design and propose additional shielding if needed.



Solutions are validated in our **ISO17025-certified Electromagnetic Compatibility Lab**.

More information?
We'd be happy to pay you a visit

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Five reasons for you to choose ENGIE Laborelec

- Wide-ranging technical expertise in electricity generation, grids, and end-use
- Customers enjoy enhanced profitability and sustainability of energy processes and assets
- Unique combination of contract research and operational assistance
- Independent advice based on certified laboratory and field analysis worldwide
- More than 50 years of experience