Reviewer's report

Title: Cardiovascular mortality and exposure to extremely low frequency magnetic fields: a cohort study of Swiss railway workers

Version: 1 Date: 10 March 2008

Reviewer: Tom Sorahan

Reviewer's report:

Major compulsory revisions.

1. The reader will be helped by reversing the order of the four columns in Tables 3 and 4, so that the order (left to right) is now in order of increasing exposure (station master, train attendant, shunting yard engineer, train driver). This will place the lowest exposure category, the refernce category, as the first category.

2. The data analysis section (page 6) needs to differentiate between the approach used for the tabulated results and those only used for ancillary analyses not referred to in the tables. This could be done by describing the "main analyses", and then referring to "additional" analyses. For example, the reader is told that age at entry was introduced as a "linear, quadratic and cubic" term. But is this relevant to what the reader is shown in the tables? I would also encourage the authors not to introduce complications that they make no real use of.

3. It may help the reader to be given the formula for the models used to generate Tables 3 and 4. Are five year calendar periods being included in the model, with a further stratification for pre- and post-1996 periods? If so, I would question whether the latter is necessary as the change from ICD-8 to ICD-10 did not include important changes for the diseases under investigation.

4. Tables 3 and 4 need footnotes making clear all the details about the applied models and censoring.

5. Some comment on the findings for all causes mortality in shunting yard engineers and train attendants needs to be made. One imagines that socio-economic status might offer an obvious explanation. Do these job categories attract lower salaries from less well-qualified applicants?

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.