

Reproductive Health Risk Evaluation in NHLS Histopathology Laboratories – List of Corrections

Comments from Examiner 1 (Internal)

Report Section	Comment	Way Addressed	Corrected Report Page & Paragraph
Abstract	1. <i>This is very long and could be shortened considerably. This could be done, in part, by removing unnecessary words (see Technical issues, below). Also, the last 2 sentences on pg 3 could be deleted – too much detail for an abstract. The first paragraph on pg 4 can also be deleted.</i>	<i>The abstract has been revised and shortened substantially; unnecessary words have been removed as indicated in Technical Issues; the last two sentences on pg 3, as well as the first paragraph on pg 4, were deleted.</i>	<i>Pages 3 & 4</i>
	2. <i>The objectives need to be reworded and summarised in the abstract, and not listed in point form. Remove the words ‘Based on the scientific literature’ from the first objective.</i>	<i>The objectives were reworded and summarised; the words ‘Based on the scientific literature’ were deleted.</i>	<i>Pg 3, paragraphs 2 & 3</i>
	3. <i>Under materials and methods – the study was not purely qualitative as measurements were taken.</i>	<i>The word ‘qualitative’ was deleted.</i>	<i>Pg 3, paragraph 4 Pg 29, paragraph 1</i>
	4. <i>The results need to be summarised – not in point form.</i>	<i>The results were summarised, bullets removed.</i>	<i>Pg 3, last two paragraphs</i>
	5. <i>Pg 5, paragraph 1 – this is fine for the body of the report, but not necessary for the abstract</i>	<i>Paragraph 1 on pg 5 was removed.</i>	<i>Deleted paragraph</i>
	6. <i>Discussion – some methodology is included here (1st & 2nd paragraphs) and should be removed; remove the last sentence.</i>	<i>The 1st and 2nd paragraphs, as well as the last sentence of the discussion, were removed.</i>	<i>Pg 4, paragraphs 1-3</i>
	7. <i>Recommendations – this section includes results which should be removed (1st sentence of paragraph 3; 1st sentence of paragraph 5); shorten paragraphs 1, 2 & 4.</i>	<i>1st sentence of paragraph 3 and 1st sentence of paragraph 5 of the recommendations were deleted; paragraphs 1, 2 & 4 were shortened.</i>	<i>Pg 4, paragraphs 4 – 8</i>

Comments from Examiner 1 (cont'd)

Report Section	Comment	Way Addressed	Corrected Report Page & Paragraph
Chapter 1: Introduction & Literature Research	1. Pg 11, line 2 – please update the number of employees	The number of employees has been updated (NHLS 2012 Annual Report figures).	Pg 10, paragraph 1
	2. Pg 13, line 4 – explain the difference between n=4300 and 230 cases.	The words 'workers' (4300) and 'cancer cases' (230) were added to the text.	Pg 12, paragraph 1
	3. Pg 13, line 5 – add '95% CI' to risk ratio.	The term '95% CI' was added.	Pg 12, paragraph 2
	4. Pg 14, line 4 – what do you mean by a prospective controlled study?	The word 'controlled' was deleted	Pg 13, paragraph 2
	5. Pg 14, lines 19 & 20 – add '95%' to CIs.	The term '95%' was added to CIs.	Pg 13, paragraph 2
	6. Pg 15, 2 nd last line – add 'and Hage' after 'Frazier'.	The words 'and Hage' were added.	Pg 15, paragraph 2
	7. Pg 16, line 2 – add 'and Hage' after Frazier.	The words 'and Hage' were added.	Pg 15, paragraph 2
	8. Pg 17, line 1 – change 'Finish' to 'Finnish'	'Finish' changed to 'Finnish'	Pg 16, paragraph 3
	9. Pg 17, line 14 – be consistent with 'Lowest Observed Effect Level' (see pg 24 where you have hyphenated the abbreviation for NOAEL).	The hyphens in 'Lowest Observed Effect Level' and 'No Observed Effect Level' were removed to create consistency.	Pg 25, paragraph 2
	10. Pg 18, last line of paragraph 3 – what does 'changing shift work' means?	The term 'changing shift work' was replaced with 'rotating shift work'.	Pg 18, paragraph 1
	11. Pg 19, paragraph 4 – 'little evidence' of what?	The sentence was amended to read: 'only little evidence was found in the literature reviewed on the effects of shift work on pre-eclampsia'.	Pg 19, paragraph 2
	12. Pg 20, line 4 – OR with 95% CI 1.0 – 3.0 is not statistically significant.	OR was corrected to 1.01 – 3.0.	Pg 19, paragraph 3

Comments from Examiner 1 (cont'd)

Report Section	Comment	Way Addressed	Corrected Report Page & Paragraph
Chapter 1: Introduction & Literature Research	13. Pg 21, line 4 – rephrase ‘with and without laboratory work’. It is unclear what this means.	The phrase ‘with and without laboratory work’ was replaced with: ‘The second study compared female university personnel performing laboratory work with non-laboratory female personnel’	Pg 20, paragraph 3
	14. Pg 23, paragraph 1 – both studies should be referenced.	Both studies - Magnusson et al., 2006, as well as Shea and Little, 1997 – were referenced.	Page 22, paragraph 3
	15. Pg 25 – define OEL the first time the acronym is used.	OEL (Occupational Exposure Limit) defined.	Page 26, paragraph 3
	16. Pg 27 (objectives) – please rewrite these as: a. Obj 1: To identify..., using... b. Obj 2: To assess..., using... c. Obj 3: To assess..., using..., and to rank...	The objectives were rewritten as per examiner’s suggestions.	Page 28, paragraph 1
	17. Pg 27, last paragraph – move this to the conclusion of the report	The paragraph was moved to Section 4.1: Conclusions and Recommendations	Page 68, paragraph 3
Chapter 2: Materials and Methods	1. Pg 28, 6 lines from bottom – replace ‘noted and captured as well’ with ‘also recorded’.	The words ‘noted and captured as well’ were replaced with ‘also recorded’.	Page 29, paragraph 5
	2. Pg 29, line 2 – replace ‘the following table’ with ‘Table 2.1’.	The words ‘the following table’ were replaced with the actual table number.	Page 30, paragraph 1
	3. Pg 29, last line – replace , ‘is shown below’ with ‘is shown in Table 2.2’.	The words ‘is shown below’ were replaced with the actual table number.	Page 30, paragraph 3
	4. Please replace all references to ‘tables below’, etc. with the actual table No.	All references to ‘tables below’ were replaced throughout the report with the actual table No.	Pages: 23, 30, 31, 33, 38, 49, 57
	5. Pg 31 – Figure 2.1 is not mentioned in the text.	A reference to Figure 2.1 was added.	Page 31, paragraph 3
	6. Pg 32, 4 th line from bottom – delete ‘(the results of which are described below)’.	The words in brackets were deleted.	Page 34, paragraph 1

Comments from Examiner 1 (cont'd)

Report Section	Comment	Way Addressed	Corrected Report Page & Paragraph
Chapter 3: Results	1. Pg 36, Table 3.1 – add a column for TOTAL on right	A 'TOTAL' column was added	Pg 38, Table 3.1
	2. Table 3.2 – move problems noted under column 'control measures in place' to 'comments'	Problems noted were moved to the 'comments' column	Table 3.2, pages 39-41, 46 and 48
	3. Pg 44 – correct spelling of 'assisted'	Spelling error corrected	Pg 46, Table 3.2
	4. Pg 47, paragraph 2 – need clarification please; no mention of TWA in Table 3.3.	Paragraphs 2-5 were amended and an additional paragraph was added explaining the way of interpreting the results, particularly the exposure index. The term TWA was added in Table 3.3 at the appropriate place.	Pg 49, paragraphs 2-4; Pg 50-54, Table 3.3
	5. Pg 47, last paragraph – please discuss Tables 3.3 and 3.4 separately; add footnotes to tables for clarification.	The text was amended and Tables 3.3 and 3.4 are referred to in separate paragraphs. A footnote was added explaining numbers in bold.	Pg 49, paragraph 2; Page 50, footnote; Pg 55, last paragraph
	6. Table 3.3 – the exposure indices are very unclear in terms of what was an 'excess exposure' measured in this study as each chemical has a different OEL/TLV/ORG. Why are some in bold? Add units to exposure indices. Are these indices or limits?	The text was amended and an additional paragraph was added before the table on page 49 explaining the way of interpreting the results, particularly the exposure index. The calculation of exposure indices is explained in detail on page 37 of the report; as the exposure index is a ratio between two values (the actual concentration and the respective limit), there are no units.	Pg 49, paragraph 4; Page 37, paragraphs 3 & 4
	7. Table 3.4 – add footnote to explain what figures in bold indicate.	A footnote was added explaining numbers in bold.	Pg 56, footnote
	8. Pg 55, section 3.1, line 3 – this is not Table 3.4.	The table number was corrected to Table 3.2.	Pg 57, paragraph 4

Comments from Examiner 1 (cont'd)

Report Section	Comment	Way Addressed	Corrected Report Page & Paragraph
Chapter 3: Results	9. <i>Table 3.5 – this should not be in the results section; move back to literature review; this table can be separated into 2 tables, the 2nd of which could comprise columns 1,3 and 4 (and could follow immediately after Table 2.1).</i>	<i>As suggested, Table 3.5 was split into two tables: columns 1 and 2 of the original table were moved to the Introduction and Literature Review section to form Table 1.1; columns 1,3 and 4 of the original table were moved to the Material and Methods section, to form Table 2.2.</i>	<i>Pg 23-24, Table 1.1 added; Page 30, Table 2.2 added.</i>
	10. <i>Pg 57, section 3.3.2 – paragraphs 1 and 2 should be in the methods section.</i>	<i>Paragraph 2 was split and moved to the Materials and Methods section, under Chemical Substances Measurement Methodology.</i>	<i>Pg 35, paragraphs 3 & 4</i>
	11. <i>Pg 57, section 3.3.2, line 6 – replace 'later' with 'latter'.</i>	<i>The word 'later' was replaced with 'latter'.</i>	<i>Pg 35, paragraph 5</i>
	12. <i>Pg 58 – discuss Table 3.6 here, before moving onto Table 3.7. There is much more you can say about Table 3.6. Describe it more comprehensively.</i>	<i>Table 3.6 (Table 3.5 in the corrected report) has been discussed and explained in more detail (two paragraphs added).</i>	<i>Pg 57, paragraphs 4 & 5.</i>
	13. <i>Table 3.6 – add footnotes, rather than referring to previous tables.</i>	<i>Footnote added in Table 3.5 of the corrected report.</i>	<i>Table 3.5, Pg 58, footnote (C)</i>
	14. <i>Table 3.7 – add footnotes, rather than referring to previous tables; you have not discussed anything about this table (no description of table or data in it).</i>	<i>Footnotes were added in Table 3.6 of the corrected report; two paragraphs added on page 57 describing the table; interpretation of data in the table is presented immediately after the table.</i>	<i>Table 3.6, Pg 63, footnotes; Pg 57, two last paragraphs</i>
	15. <i>Pg 65, last sentence – move to discussion</i>	<i>The last sentence on Pg 65 was moved to the discussion section</i>	<i>Pg 67, paragraph 3</i>

Comments from Examiner 1 (cont'd)

Report Section	Comment	Way Addressed	Corrected Report Page & Paragraph
Chapter 4: Results	1. <i>Please discuss (somewhere) how your results compare to laboratories elsewhere in the world. Did any of the studies you reviewed provide measurements? i.e. are the NHLS labs similar in terms of exposure to labs elsewhere?</i>	<i>Two paragraphs were added to the report discussing measurement results obtained from other studies and comparing them to the measurement results obtained in our study.</i>	<i>Pg 65, last paragraph & Pg 66, first paragraph</i>
	2. <i>Pg 66, paragraphs 2-4 – I don't see these as limitations; limitations should be towards the end of the discussion (before recommendations).</i>	<i>The structure this section has been altered and the discussion on limitations has been moved before Conclusions and Recommendations.</i>	<i>Pg 65 paragraphs 1-4; Pg 66 paragraphs 3-6; Pg 67 paragraphs 1-4</i>
	3. <i>Talk about what future studies might add – take this from paragraph 2, pg 67.</i>	<i>A section on future studies has been added at the end of the report.</i>	<i>Pg 72, paragraphs 2 & 3</i>
	4. <i>Pg 67, 2nd part of paragraph 2 – this is a good opening paragraph</i>	<i>The suggested paragraph was used as an opening paragraph in the section on future studies.</i>	<i>Pg 72, paragraph 2</i>
	5. <i>Pg 68, section 4.1 – this is a summary, would be nice for the abstract but not necessary here. Your conclusion (last paragraph of the discussion) should sum up the results, not the methodology, and the recommendations, in few sentences.</i>	<i>The summary paragraph was deleted from the Conclusion and Recommendations section; A paragraph was added under 'conclusion and future studies' summarising the results and recommendations.</i>	<i>Pg 67 – paragraph deleted; Pg 72, first paragraph</i>
	6. <i>Pg 68, last sentence and top page 69 – this should be part of 'future studies'.</i>	<i>The paragraph indicated was moved to 'conclusion and future studies' at the end of the report.</i>	<i>Pg 72, paragraph 3</i>
	7. <i>Pg 72, paragraphs 3 and 4 – combine.</i>	<i>The two paragraphs were combined.</i>	<i>Pg 72, paragraph 2</i>

Comments from Examiner 1 (cont'd)

Report Section	Comment	Way Addressed	Corrected Report Page & Paragraph
Chapter 4: Results	8. Pg 73 – need a concluding paragraph (see point 5 above).	A concluding paragraph summarising the results and recommendations was added under 'conclusion and future studies' at the end of the report.	Pg 72, paragraph 1
References	1. Reference 1 and 2 – inconsistent (Conference for ... vs. Conference of...).	Reference 1 has been corrected (Conference of..).	Pg 73, first reference
	2. ILO ref – add month accessed.	Month accessed added	Pg 73, last reference
	3. UNEP – provide full name.	Full name provided.	Pg 75, 8 th reference
Technical issues	Minor grammatical errors (marked in pencil on the draft report).	Minor grammatical errors were corrected throughout the report as indicated by the examiner.	Pg 3 - 72
Style and writing	Please add lines between paragraphs – e.g. pg 12: section 1.1. Check though the report for this.	Lines were added between paragraphs were required though the report.	Pg 3 - 72

Comments from Examiner 2 (External)

Report Section	Comment	Way Addressed	Corrected Report Page & Paragraph
Chapter 2: Materials and Methods	1. <i>Add the footnote abbreviation LTA-OEL also into the Abbreviation list, Pg 10.</i>	<i>LTA-OEL definition was added into the Abbreviations list</i>	<i>Pg 9, Abbreviations</i>
	2. <i>Pg 33: Move table 2.6 to just after the 2nd last paragraph, where the table 2.6 is mentioned. Thus the last paragraph on Pg 33, where Table 2.7 is mentioned, will be just before Table 2.7.</i>	<i>Table 2.6 (Table 2.7 in the corrected report) was moved immediately after the paragraph where the table is mentioned. Table 2.7 (Table 2.8 in the corrected report) is now placed also just after the paragraph where the table is mentioned.</i>	<i>Pg 35, last paragraph; Pg 36, Table 2.7 and Table 2.8.</i>
Results	1. <i>Pg 37, Table 3.2: By grouping of all the different size laboratories' results together this might have an effect on the "Hazard quantity" column? The average specimen handled is 50-60. Will the small labs be able to handle this?</i>	<i>As explained in the report, and following the AIHA and HSE methodology, the focus in this assessment was on "worst-case" scenario; The rationale is that by controlling the worst case exposures the less exposed workers would also be invariably protected.</i>	<i>Pg 72, paragraph 2</i>
	2. <i>Pg 37, The Hazardous Biological Agents (infectious microorganisms) are not discussed in the Hazard Quantity, etc.</i>	<i>As stated in the study objectives, although the literature review and hazard identification were carried out on a range of occupational health hazards, the quantitative assessment was carried out only on important <u>chemical hazards</u>. No measurements were performed to quantify the levels of infectious microorganisms.</i>	<i>Pg 28, paragraph 1</i>

Comments from Examiner 2 (cont'd)

Report Section	Comment	Way Addressed	Corrected Report Page & Paragraph
	3. Pg 39, Column 2, <i>Ergonomics: is this also for a small lab? Do they lift also so many drums?</i>	<i>As explained in the report, and following the AIHA and HSE methodology, the focus in this assessment was on “worst-case” scenario; The rational is that by controlling the worst case exposures the less exposed workers would also be invariably protected.</i>	<i>Pg 72, paragraph 2</i>
	4. Pg 43, Column 1: <i>Remove the extra minus before -22 °C.</i>	<i>The extra minus was removed.</i>	<i>Pg 45, Table 3.2, Column 1</i>
	5. Pg 47: <i>Move the last 2 paragraphs (Table 3.4...) to end of Pg 53, just before Table 3.4. This is confusing leave it 6 pages before the Table.</i>	<i>The paragraph discussing Table 3.4 was moved just before the table to eliminate confusion.</i>	<i>Pg 55, last paragraph</i>
	6. <i>No sampling time was close to 8 hours. Explain how the rest of the exposure times were allocated. Did you assume zero exposure for the rest of the time? OELs and TLVs are for 8 hour exposures. Please address this in the report.</i>	<i>An explanation was added on page 35 of the report, stating that sampling was conducted over a representative portion of the work shift, typically between 4 and 6 hours. It was assumed that workers' exposure remained similar throughout the shift.</i>	<i>Pg 35, paragraph 3</i>
	7. Pg 54, Table 3.4: <i>Explain the bold fonts in the table. Are these results over the TLV?</i>	<i>A footnote was added to Table 3.4 denoting that values in bold exceed the ACGIH-TLV.</i>	<i>Table 3.4, Pg 56</i>
	8. Pg 55 “3.3.1 Health Hazard Assessment...” <i>Table 3.5, Ionizing Radiation is mentioned in the table. But not included in the paragraph before the table where all the classes of potential reproductive health hazards were listed.</i>	<i>This paragraph has been amended to include ionizing radiation, and it is now before Table 2.2, following Examiner 1 suggestion to move Table 3.5 into the literature research section and split it into two tables.</i>	<i>Pg 30, last paragraph.</i>