

Aarhus, June 28, 2021

Comments to NRCWE's response to the points raised by the Quality Committee on:

*Short report from Danish Working Environment Authority's (AT) Occupational exposure limit quality committee. Evaluation of the report: Zinc oxide: Scientific basis for setting a health-based occupational exposure limit.*

First of all we want to thank NRCWE for a through and comprehensive answer to our comments. We notice that causality between inflammatory markers and CVD is primarily supported by animal and other mechanistic studies, and not strong epidemiological evidence. Apart from that we have only one additional comment. We agree, the recommendations for short term exposure levels should be health based. The reasoning that very high short term exposures adds to the cumulative deposited is correct, but in order to decide on the impact of exposure peaks on average or cumulative exposure information about exposure variability and exposure patterns are needed, and data on this is apparently not available or at least not presented in the revised report. Based on information in Table 3 there is a factor 5- 10 between typical and worst case scenarios for average values. Furthermore, the standard deviations are high, especially for works case scenario, reflecting a high variability in exposure. Belgium and Finland have a factor 5 between the short term and the 8 hours OEL, and Switzerland and Germany a factor 4. For Denmark a factor 2 is present. It is unfortunate the information underlying national regulatory decisions regarding the factor between short term and 8-hour OEL are apparently not publicly available. Given the available (sparse) data we suggest to follow the recommendations from the four other European Countries, **and recommend a short time max value 4 or 5 times higher than the suggested long-term value of 0.05 mg/m<sup>3</sup> ZnO.**

On behalf of the Members of the quality committee

Vivi Schlünssen