

Jennifer Van der Merwe

From: Kim, Nick <N.Kim@massey.ac.nz>
Sent: Monday, 25 July 2016 5:49 p.m.
To: Morag Wiley
Subject: Adoption of alternative guidelines

Hi Morag;

Just to clarify on points raised earlier.

Before adoption of the 1.5 µg/100 cm² figure under the guideline hierarchy, I'd recommend seeking confirmatory sign-off from the Ministry for the Environment and the Ministry of Health. This could take the form of a simple counter-signed letter confirming that the 1.5 µg/100 cm² guideline is a valid alternative international risk-based guideline that is available for selection under the Ministry for the Environment's "Contaminated Land Management Guideline #2: Hierarchy and application in New Zealand of environmental guideline values (revised 2011)."

<http://www.mfe.govt.nz/publications/land-hazards/contaminated-land-management-guidelines-no-2-hierarchy-and-application-new>

This hierarchy and document was used and referred to in selecting numeric values in the Ministry of Health's "Guidelines for the Remediation of Clandestine Methamphetamine Laboratory Sites" (2010), so I think it would be appropriate to seek sign-off from both Ministries before proceeding, in a short letter that could be published on the Housing New Zealand website.

The origin, jurisdictional use, and health-protective nature of the 1.5 µg/100 cm² guideline is discussed in the Ministry of Health (2010) document.

In my view the 1.5 µg/100 cm² guideline has always been available as a valid alternative in the context of both the guideline hierarchy and the comments made in the Ministry of Health (2010) document that: "These guidelines have no statutory effect and are of an advisory nature only." However in practice no one has applied the 1.5 µg/100 cm² figure in New Zealand yet, and this is probably because of the exact wording used around the alternative 0.5 µg/100 cm² figure (even though that wording is presented as provisional and clearly specifies the context of clean-up of a meth lab). The specific wording was: "The Ministry of Health **currently** recommends that surface wipes for methamphetamine not exceed a concentration of 0.5 µg/100 cm² as the acceptable post-remediation re occupancy level **for a dwelling that has been used as a clan meth lab.**"

This is the reason why it would now be appropriate to seek sign-off from the two Ministries before adopting the 1.5 µg/100 cm² figure, first to confirm that this is indeed also a valid selection under MfE's guideline hierarchy (as already argued in MoH 2010), and second to confirm that MoH is comfortable with use of the alternative figure, which is now used in four US States. From a toxicological perspective both figures are actually equally protective because they represent the same order-of-magnitude and same negligible health risk. There really should not be any issue with using either. Something that is often missed here is that both numbers are referring to **millionths** of a gram. There is no prospect of a pharmacological effect at either 0.5 millionths (0.0000005 grams) , or 1.5 millionths (0.0000015 grams), per 100 cm². As outlined in the MoH(2010) document, the 1.5 µg/100 cm² was specifically adopted through legislation in California, replacing an earlier lower figure, on the basis of technical evidence that it is sufficiently health-protective.

For adoption of any higher figure (e.g. 3 µg/100 cm², or 6 µg/100 cm²) my view is that this should not rest on the opinion of one toxicologist, whether that is me or anyone else. This type of determination needs to be made by a toxicological reference group through a consensus process, in the same way as was done for the national environmental standard for contaminants in soils, and if necessary taking the relevance of background prevalence into account. The decision-making functions of the a technical advisory group (TAG) of this type group would generally rest with senior toxicologists employed by Government Ministries. For development of the soil standards, staff from the Ministry of Health, the Ministry for the Environment, ERMA (now EPA) and MPI were all involved.

Best regards,
Nick.