Australian Government
Asbestos and Silica Safety and Eradication Agency

ASBESTOS SAFE

Development of the asbestos-containing material risk assessment model

Factsheet

The National Guide for Asbestos Surveys (the National Guide) sets a consistent, best practice standard for identifying and assessing asbestos-containing materials (ACMs) across Australia. The National Guide incorporates an ACM risk assessment model developed by the Victorian Asbestos Eradication Agency (VAEA).

Part 6 of the National Guide states that a survey should include an assessment of the likelihood of various ACMs releasing asbestos fibres. This assessment identifies the necessary remedial actions to prevent asbestos exposure and helps prioritise ACMs for removal.

The use of risk models has long been recognised in the work health and safety industry as a means by which to make this estimation.[1] However, in the absence of any widely accepted or consistent method, asbestos risk assessments can vary greatly.

The VAEA developed and implemented its risk assessment model (risk model) to provide a consistent and objective assessment of the potential risk of asbestos fibre release. This model has been incorporated into the National Guide as a standardised asbestos risk assessment tool.[2]

The risk model provides parameters to guide surveyors to make objective, qualitative assessments of 4 factors that contribute to an ACM's potential risk. Each assessment is assigned a numerical value, and a calculation is applied to produce a risk rating. The risk model is not designed to calculate absolute differences in potency, fibre release or hazard potential between ACMs. Rather, it is designed to estimate the potential for fibre release and to rank ACMs in a simple numerical order. It is important to note that the risk scores and risk rating results are not an absolute determination of human exposure or health risk.

[1] The model provides an estimation, not a definitive measure, of risk.

[2] Part 6.1 of the National Guide for Asbestos Surveys

Stages of development and endorsement

1. Research

In 2017, alongside internal assessments of existing risk models and regulatory considerations, the VAEA commissioned a research institute[3] to review global risk assessment approaches.

2. Development

The VAEA consulted widely with representatives of the occupational hygiene industry as well as with asbestos removalists, unions and employers. This consultation, together with internal research, identified key themes for risk model development. These themes were:

- assessing risk in accordance with the Victorian OHS Regulations (ACM friability, condition, deterioration or disturbance potential)
- reducing subjectivity in the risk assessment process
- ensuring that disturbance potential considers activities that may not be regular or predictable such as maintenance or activities that could result in accidental or inadvertent damage to an ACM.

Using these themes, the VAEA determined that it was necessary to develop a minimum of 3 different risk assessment models for testing.

3. Testing

Internal testing and consultation were conducted on the various models. The VAEA project team, including technical staff with industry experience, assessed the accuracy of each model's risk ratings against a desktop review of ACM information.

The model that most accurately reflected observed, real-world conditions was demonstrated to technical specialists from the state workplace health and safety regulator, WorkSafe Victoria, who provided feedback for further refinement.

The VAEA visited 4 sites with various building types to test the final model, confirming that risk assessment results reflected the visual assessment of the ACMs.

[3] Institute for Safety, Compensation and Recovery Research

4. Endorsement

In 2018, the Asbestos and Silica Safety Eradication Agency (ASSEA)[4] endorsed the model, noting it:

- addresses all applicable criteria in the University of Tasmania checklist[5] designed to assess visual inspection asbestos assessment tools
- meets legislative requirements at state and national levels
- is consistent with the risk assessment criteria set out in AS/NZ ISO 3100:2009[6] Risk Management – Principles and Guidelines.

Since this endorsement, the VAEA has applied the model to ACMs from more than 13,000 buildings owned by the Victorian Government.

5. National consultation and verification

As part of developing the National Guide, which began in 2023, the risk model was presented to a working group of asbestos professionals, industry associations, regulatory authorities and worker representatives from across Australia. The risk model and draft guide were released for broader public consultation in September 2024.

In response to feedback, additional variations of the risk model were tested. The original 4-factor risk model proved to be the most reliable and objective for estimating the potential for asbestos fibre release.

International recognition

In 2025, the European Union adopted new guidelines for managing workplace asbestos-related health and safety risks.[7] The guidelines highlight the VAEA risk model's effectiveness as a tool to assess and prioritise ACM removal.

[4] Formerly, the Asbestos Safety and Eradication Agency (ASEA)

[5] Cummings, E & Roehrer, E, (2015), 'A methodology report on the development of evaluation criteria to assess visual asbestos assessment tools'. Submitted to ASEA

[6] The applicable version of the standard at the time the risk model was developed

[7] European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2025: 41–42), 'Guidelines for managing asbestos-related health and safety risks at work'