2024 Review of the Dust Diseases Scheme, Public Hearing 2nd May 2025 Questions on Notice to Kate Cole OAM, PhD candidate at the University of Sydney

The Hon. SUSAN CARTER: Any details about that Swiss model, that you were easily able to provide on notice, I think we'd be very grateful for.

Thank you for the opportunity to provide further detail on the Swiss model, which I explored as part of my Churchill Fellowship¹. A summary of the approach adopted in Switzerland as I understand it is outlined below.

In Switzerland, tunnel contractors are required to obtain workers' compensation insurance through the Swiss National Accident Insurance Fund, known as SUVA, which insures approximately two million workers against occupational accidents and diseases. SUVA is responsible for:

- 1. Provision of workers' compensation insurance
- 2. Prevention of workplace incidents and occupational diseases
- 3. Delivery of rehabilitation services for injured or ill workers

Under Swiss federal public procurement law, contracts cannot be awarded unless contractors demonstrate how they will meet work health and safety requirements. This means that clients must include specific health and safety provisions in tender documents, and tenderers must present detailed plans that are evaluated as part of the bidding process. This differs from the approach in Australia, where Tender documents may require a commitment from the prospective Tenderer that they will comply with certain requirements, but the specific details of how these requirements will be met (e.g. through providing a comprehensive ventilation plan) may not occur until after Contract Award.

Swiss tenderers must assess potential health hazards and provide evidence of how risks will be controlled. Once a contract is awarded, tunnel contractors meet with SUVA to review their health and safety plans and risk assessments. These reviews include detailed evaluation of ventilation strategies, air quality management, temperature controls, and personal protective equipment.

SUVA publishes a standardised methodology for workplace risk assessments. Key requirements include:

- Defining the scope of work areas before identifying hazards
- Subdividing work operations into processes and identifying those that are critical based on incident or illness data
- Conducting assessments using an interdisciplinary team of between four and six members, including the operations manager, engineer, health and safety specialist, workplace supervisor, and planning engineer
- Using medical surveillance data to inform the likelihood and consequence ratings for occupational diseases

SUVA conducts regular site visits at least every six to eight weeks and may carry out unannounced audits. If a control measure listed in the contractor's health and safety plan is not in place or is found to be ineffective, SUVA has the authority to shut down the project. In less serious cases, SUVA issues formal warnings. If a contractor receives four warnings, they are sanctioned and must pay an additional 20% on top of their usual insurance premium for twelve months. As insurance premiums range from 10 to 12% percent of payroll, this penalty represents a significant financial consequence.

While these insurance premiums may be higher than Australian worker's compensation premiums, it is important to understand that they essentially include all medical surveillance costs (which is an additional cost to contractors at present) and the work of the health and safety regulator combined.

Medical surveillance is central to the Swiss model. All tunnel workers must undergo a preventive medical assessment before commencing work, conducted by SUVA or one of its accredited providers.

¹ https://www.churchilltrust.com.au/fellow/kate-cole-nsw-2016/

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The assessment includes hearing tests, heat tolerance evaluations, lung function tests, chest x-rays, and the collection of blood and urine samples. These exams are repeated every two years, with all costs covered by SUVA, including lost time. The contents of the medical exam and the associated pass/fail or "fit for duty" requirements are dictated by SUVA. Tunnel Contractors must advise SUVA when they plan to commence work and list the names of the workers who will be involved so that SUVA can cross-check their existing medical information. SUVA run various awareness campaigns that target the highest risk areas as identified by medical data.

Exposure monitoring is conducted both by the contractor (via occupational hygienists) and by SUVA, which performs independent monitoring every 6–8 weeks. Monitoring targets high-risk tasks and locations, using both traditional and real-time methods. Contractors are required to submit exposure data to SUVA on a routine basis.

If a monitoring result exceeds the exposure standard, SUVA issues a formal request requiring the contractor to submit a control plan using the "STOP" hierarchy:

- 1. System Integration of control measures into the safety management system
- 2. Technical Engineering controls (e.g. ventilation, suppression)
- 3. Organisational Administrative controls (e.g. job rotation, task scheduling)
- 4. Personal Protective Equipment Used only as a last resort

The addition of the "System" control measures would be a welcome addition to an Australian-based control hierarchy. Embedding controls into a contractor's systems increases the likelihood they will be sustained and replicated across future projects.

If exposure is measured above the Exposure Standard due to the planned control measures not being in place, then SUVA can issue a warning, or in severe cases, issue a notice to the Contractor to stop work. Work can only then re-commence after:

- a) the control measures have been implemented;
- b) SUVA undertakes additional exposure monitoring, and
- c) the results of that exposure monitoring are below the Exposure Standard.

SUVA acts as both insurer and regulator which enables them to directly intervene in the interest of worker health, ensuring its insurance model is underpinned by proactive prevention.

SUVA also shares its knowledge and lessons learned widely and contributes to international best practice through organisations such as the International Tunnelling Association. It has supported guidance documents on occupational health and safety and ventilation practices in tunnel construction.

The Swiss approach of integrating medical surveillance, exposure control, and rehabilitation is a model that deserves further exploration.