



Chemeca2026
Innovate. Integrate. Impact.

28 – 30 September 2026
Melbourne, Australia



*Chemeca 2026 and Hazards Australasia
28 – 30 September, Melbourne, Australia*

Abstract title

Safety Cases and the challenge of demonstrating adequacy

Author(s) Name: Brian Moody

Affiliation(s): IChemE Safety Centre Industry Partner, Australian Institute of Health and Safety

E-mail: brian@microriskgroup.com.au

ABSTRACT

The obligation on major hazard facility (MHF) operators to actively and comprehensively demonstrate the adequacy of their safety management system (SMS) and adopted risk controls featured prominently in the Cullen Report into the Piper Alpha Disaster which advocated for the "goal-setting" regime. Yet what ought to be a central plank of an effective safety case, remains elusive for some MHF operators and those preparing them.

The demonstration of adequacy (DoA) is a key content requirement of a MHF operator's safety case and is a feature of WHS and OHS regulation of MHFs in all Australian jurisdictions. A requirement that has predicated the current regulatory regime and was described in the 1996 National Standard for the Control of Major Hazard Facilities.

Despite this the requirement to demonstrate the adequacy of both the safety management system and risk control measures within the safety case has proven to be a challenge for a number of MHF operators, particularly the collation and presentation of supporting evidence to mount a convincing argument that the implemented SMS and adopted control measures are in fact adequate. In this presentation, we take a deeper look at what 'adequacy' in the MHF regulatory context actually means and share our experience with assisting MHF operators to develop coherent arguments and strategies to address this regulatory requirement. The DoA is closely linked to the performance standards and performance monitoring of both the SMS and control measures. Without an effective performance monitoring program, it is challenging for a MHF operator to successfully argue in the safety case that the SMS and control measures are in fact adequate.

DOA can be particularly challenging for operators who have determined that quantitative risk assessment methodologies are inappropriate. This in itself is more prevalent in less

sophisticated MHFs. Regardless the failure to effectively articulate and document the DOA inevitably impacts on the success of the Safety Case in presenting an operator's ability to safely and competently operate a MHF which may lead licence refusal.

With a number of MHFs struggling to implement and/or maintain effective performance monitoring programs as evident by numerous licence conditions on the topic, how will these facilities successfully prepare their DOA in the next round of re-licencing?

KEY WORDS

Safety Case, Major Hazard Facilities, Demonstration of Adequacy, Compliance

BIOGRAPHY

Include a short biographical (100 words) for the presenting author

Brian Moody BAsC, Occupational Health & Safety

Principal Consultant, MicroRisk Group

Brian is an accomplished Process Safety professional with extensive experience in Major Hazards. Prior to joining MicroRisk Group, Brian held a number of technical roles within WorkSafe and industry. With extensive experience working as a Senior Process Safety Analyst at WorkSafe; Brian has wealth of regulatory and operational experience to draw upon when working with clients to reduce the risk of major incidents. Brian simultaneously focuses on reducing risk whilst presenting initiatives and activities in a coherent and effective manner through the Safety Case and engagements with the Regulator.

CONFERENCE PROGRAM

Please indicate which conference program your abstract relates to:

Hazards Australasia

Chemeca