

Risk and Management of Asbestos: Comparing and Exploring the International, Chinese and Hong Kong Asbestos Management System

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Abstract

This project aims to examine the asbestos management systems of Hong Kong and Mainland China. It evaluates the impact of differing regulatory frameworks, enforcement capacities, and socio-political contexts on public health protection. The study contrasts Hong Kong's comprehensive ban and rigorous enforcement with Mainland China's partial ban and the persistent gap between policy and practice. The findings highlight that effective asbestos management demands a holistic system of legal mandates, professional accountability, and consistent enforcement.

Methodology

This study employs a Qualitative Comparative Case Study approach. Data was synthesized from:

- Policy & Legal Documents
- Government Reports & Academic Literature
- Case Study Information & Media Reports

The methodology is interpretive, aiming to understand the reasons behind policy divergences. No quantitative statistical analysis was performed.

Key Findings: System Comparison

Feature	Hong Kong	Mainland China
Legal Ban	Full Ban (All types)	Partial Ban (Chrysotile permitted)
Regulatory Model	Prescriptive & Professional-led	Performance-oriented & Ambiguous
Enforcement	Rigorous & Centralized	Inconsistent & Localized
Waste Disposal	"Cradle-to-grave" Trip-Ticket System	Often handled as general waste
Public Awareness	High / Proactive Civil Society	Low / Developing

Figure 1 depicts severely damaged and friable asbestos rope lagging at the Tung Tau Wan dormitories. The deteriorated physical condition, which allows for easy release of airborne fibers, was the critical factor necessitating its prioritized removal under controlled conditions, not its chemical composition.



Figure 1. a) Asbestos-containing Rope Lagging in location A; b) in location B; c) in location C at Tung Tau Wan dormitories.

Case Study 1: Hong Kong

Regulated Abatement at Tung Tau Wan Dormitories

Assessment: Mandatory survey by a Registered Asbestos Consultant identified friable ACMs.

Process: Work performed by a Registered Contractor inside a sealed, negative-pressure enclosure.

Methods: Wet methods used to suppress fiber release.

Outcome: A successful, professionally managed project exemplifying a system of risk assessment, accountability, and procedural rigor.

Case Study 2: Mainland China

Literature-Based Archetype: Industrial Renovation

Assessment: Informal, in-house assessment focused on operations, not health risk.

Process: Work performed by untrained general laborers with inadequate PPE.

Methods: Dry stripping, maximizing airborne fiber release.

Outcome: A high-risk scenario highlighting the critical "enforcement gap" and the failure to translate national laws into safe practice.

Discussion

The divergence between the two systems is shaped by deep-seated factors:

Legal Tradition: Hong Kong's prescriptive, British-based common law system vs. China's performance-oriented civil law tradition.

Socio-Economics: Hong Kong's post-industrial economy and active civil society vs. Mainland China's influential asbestos industry and different developmental priorities.

Conclusion: An effective asbestos management system demands more than legislation. It requires a robust ecosystem of professional certification, prescriptive guidelines, and consistent, uncompromised enforcement.

Policy Recommendations

For Mainland China:

- Establish a time-bound roadmap to a full ban on chrysotile, aligning with WHO/ILO.
- Create a mandatory national registry for certified asbestos professionals.
- Empower a national unit for centralized enforcement to overcome local protectionism.

For Hong Kong:

- Fund research into the long-term cost-effectiveness of different abatement strategies.
- Develop a public-facing register for buildings known to contain asbestos, thereby enhancing transparency.