





### **Media Release**

For Immediate Release

# New Guidelines to Improve Indoor Air Quality in Singapore

 The Alliance for Action on Sustainable Spaces conducted consultations with industry stakeholders to develop a set of guidelines and recommendations to promote the health and safety of building occupants

**Wednesday, 4 January 2023 [Singapore]** – Minister for Sustainability and the Environment Ms Grace Fu officially launched the "Industry Guidelines for Indoor Air Quality" at a visit to C&W Services, the facilities and engineering arm of global real estate services firm, Cushman & Wakefield today. The industry guidelines are part of efforts by the Alliance for Action (AfA) on Sustainable Spaces to raise public awareness on the importance of good indoor air quality.

- Developed in consultation with industry stakeholders, the guidelines focus on five priority areas that companies should consider: (i) adopt emission limits for products and furnishing indoors, (ii) adopt Singapore standards for good indoor air quality, (iii) acquire certification as an endorsement of their efforts to maintaining good indoor air quality, (iv) implement workplace safety and health guidelines, (v) monitor Indoor Air Quality and implement mitigating measures. The recommendations are aligned to three guiding principles to regulate, incentivise and to foster collaboration within the industry-public sector. The infographic of the industry guidelines can be found in Annex A.
- The AfA on Sustainable Spaces was jointly formed by the Singapore Business Federation (SBF), Singapore Furniture Industries Council (SFIC), and Singapore Green Building Council (SGBC) in November 2021, to bring together stakeholders across different sectors to create and enhance sustainable spaces. Supported by the Building and Construction Authority (BCA) and the National Environment Agency (NEA), the AfA also aims to help solution providers and adopters seize opportunities in the green economy and support the *Singapore Green Plan 2030*.
- During the visit to C&W Services, Minister Grace Fu also engaged more than 40 AfA members and industry stakeholders in a fireside chat on advancing the sustainability agenda, moderated by SBF Council Member Mr Ernie Koh.

- Mr Ernie Koh, Council Member, SBF, said, "Good indoor air quality is critical to our health and well-being, given that we spend more than 90% of our time indoors. The industry guidelines are an industry-initiated effort by the industry, for the industry. Through the development of these guidelines, the AfA hopes to showcase the best practices for good indoor air quality, and at the same time, bring greater attention to the many sustainable products and offerings by local companies."
- Ms Natalie Craig, Managing Director, C&W Services Singapore said, "Good indoor quality is essential to enhancing productivity and promoting a healthy work environment. Industry guidelines are a meaningful step towards addressing indoor air quality. At C&W Services, we leverage cutting-edge technologies and combine them with the best detection and analytics tools. This means that we can use innovations such as air quality monitors to deliver excellent indoor air quality and our analytics platform to provide actionable insights for stakeholders to make accurate ventilation decisions."
- Mr Phua Boon Huat, President, SFIC, said, "The timely introduction of the Industry Guidelines for Indoor Air Quality under the AfA is the latest strategy that is in line with the furniture industry's own Sustainability Blueprint and 2025 Furniture Industry Roadmap. SFIC has committed to the AfA's Low Formaldehyde Commitment Pledge in April 2022 to supply or adopt low or no formaldehyde products and solutions. These new industry guidelines would mean the public and consumers will be able to enjoy cleaner and greener urban indoor spaces in future. Moving forward, we would like to advocate for industry players to opt for cleaner, safer materials in their offerings and designs. As for the consumers, we hope that these guidelines will encourage and educate them to be able to discern what's best for their family and the environment."
- 8 **Mr Tang Kok Thye, President, SGBC,** said, "Green buildings are good for the environment but even better for people with their emphasis on human health and wellbeing. With growing consumer attention on the impact of air quality on health, these guidelines will help to spur concrete action by companies to monitor, track and optimise the health and well-being of our places and spaces for occupants."
- 9 To view the guidelines, please click here: <a href="https://www.sbf.org.sg/what-we-do/advocacy-policy/policy-development">https://www.sbf.org.sg/what-we-do/advocacy-policy/policy-development</a>

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#### About Singapore Business Federation (新加坡工商联合总会)

As the apex business chamber, the Singapore Business Federation (SBF) champions the interests of the business community in Singapore in trade, investment and industrial relations. Nationally, SBF acts as the bridge between the government and businesses in Singapore to create a conducive business environment. Internationally, SBF represents the business community in bilateral, regional and multilateral fora for the purpose of trade expansion and business networking.

For more information, please visit: www.sbf.org.sg

#### About Singapore Furniture Industries Council (新加坡家具工业理事会)

The Singapore Furniture Industries Council (SFIC) is established since 1981 as the official representative body of Singapore's furniture and furnishings industry. It has a membership of over 360 companies, spanning across five key industry clusters: furniture manufacturers, interior fit-out specialists, retailers, designers, as well as materials/ components/services providers. Collectively, our industry players have a global footprint in over 80 countries to date. Currently, the council represents 95% of established furniture manufacturers in Singapore, of whom 65% have subsidiary manufacturing plants in various countries across the region, including China, Indonesia, Malaysia, Myanmar, Thailand, and Vietnam.

As an aggregator and multiplier in the furniture eco-system, the SFIC's vision is to position the Singapore furniture industry as the nexus of tomorrow's work-life integration for sustainable urban living. In essence, the industry aims to pursue the three key pillars of market agility, urbanite-centricity and enterprise adeptness to drive the industry further.

SFIC's priority initiatives include internationalisation, design development, business innovation, digitalisation and sustainability to enable members to stay future ready and competitive, while upgrading enterprise and human capital capabilities within the industry.

The SFIC also helms as the Chairman of the ASEAN Furniture Industries Council (AFIC), with the aim of further strengthening intra-ASEAN trade and its competitive advantage in the global market.

Visit <u>www.singaporefurniture.com</u> for more information.

#### About Singapore Green Building Council (新加坡绿色建筑委员会)

The Singapore Green Building Council (SGBC) enables sustainability across the building and construction value chain, championing capability development and innovative solutions that support industry transformation through our Membership, Certification and outreach programmes. The repository of proven green building solutions helps to enable green procurement in the industry, profiling leading and innovative solutions that go towards building a greener, healthier built environment. Together with a growing pool of industry-recognised Green Mark Accredited Professionals, SGBC addresses every touchpoint of the green building ecosystem.

For more information, please visit www.sgbc.sg.

# NDUSTRY GUIDEL

#### Background

According to the World Health Organization (WHO), air pollution causes



of our time is spent indoors, placing us at health risk when exposed ! to poor indoor air quality .

#### **HEALTH IMPACTS OF POOR INDOOR AIR QUALITY**



Respiratory



Sick Building Syndrome

### WAYS TO ENHANCE AIR QUALITY

Knowledge on how to maintain good indoor air quality is critical in ensuring the health and safety of building occupants.

Consultations were conducted with industry stakeholders to develop 5 guidelines and 3 recommendations to amplify industry efforts to improve indoor air quality.



## Adopt Emission Limits for Products & Furnishings Used Indoors

through Products & Furnishings

Controls should minimally be applied to products, Direct Control of Emissions Levels fixtures and furnishings that cannot be easily removed or changed once installed or applied. These include: Paints & Coatings, Adhesives and Composite Wood.

#### A First Step: Reducing Formaldehye Emissions at Source

Formaldehyde is commonly found in building materials and household furnishings. Emissions from these materials are known to be sustained over a long period of time. Formaldehyde is a known carcinogen and it

is imperative that its levels in indoor spaces are kept below specified thresholds, or eliminated entirely.		
Product	Proposed Emission Limits for Formaldehyde (mg/m³)	Measurement Method
Adhesives	0.100 (with reference to SS150)	ASTM D5116 or ISO 16000-9  • Additional reference to SS 150:2021 Clause 7.1.12 for sample preparation and test parameters
Coatings & Paints	0.100 (in line with Standard EN 13986, E1 standards)	ASTM D5116 or ISO 16000-9
Composite Wood	0.124 (with reference to SS554)	ASTM D5116 or ISO 16000-9



# Adopt Singapore Standards for Good Indoor Air Quality

Although there are no specific regulations governing indoor air quality in Singapore, building owners, facility managers and occupants can take guidance from the following standards:

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Singapore Standard Code of Practice for Indoor Air Quality for Air-Conditioned Buildings (SS554)

Specifies good practices in managing indoor air quality, recommended ranges and limits of certain indoor air quality parameters.

Singapore Standard Code of Practice for Air Quality for Air Conditioning and Mechanical Ventilation Buildings (SS553)

Complements the \$\$ 554 and provides general guidance in the design, construction, installation, testing and commissioning, operation and maintenance of air-conditioning and mechanical ventilation systems.

Singapore Standard Specification for Emulsion Paint for Decorative Purposes (SS150)

Helps manufacturers to reduce emissions from their products.



# Acquire Certifications

Industry stakeholders are encouraged to acquire certifications as endorsement of their efforts to maintaining good indoor air quality.



Building and Construction Authority (BCA) Green Mark certification scheme:

Continual efforts to improve indoor air quality is one criteria assessed for the BCA Green Mark.



#### Singapore Green Building Product (SGBP) certification:

The SGBP label recognises products that have been tested and certified as sustainable building products and materials.



Singapore Furniture Industries Council (SFIC) is working towards the development of a sustainability resource guide to assist furniture companies in transforming their business into a more sustainable business model aligned to new and emerging sustainability certification programmes.



# Implement Workplace Safety and Health Guidelines

Employers should aim to implement Workplace Safety and Health Guidelines for their employees' welfare.

The Workplace Safety and Health (WSH) Guidelines on Management of Indoor Air Quality in Air-Conditioned Workplaces

Provides a practical supplement, on achieving and managing good IAQ, to building owners, facility managers and employees on achieving and managing good indoor air quality at workplaces.

#### <u>Workplace Safety and Health (General Provisions)</u> <u>Regulations</u>

Specifies permissible exposure limits (PELs) to toxic substances for workers.





# Monitor Indoor Air Quality and Implement Mitigating Measures

Indoor air quality should be monitored after any initial renovation or fit out. If emissions levels do not comply with the proposed limits, actions should be taken to reduce them permissible levels.

#### DETECT AND MONITOR

Use air quality sensors or environment monitors to track indoor emission levels.





#### **ELIMINATE AND ENHANCE**

Eliminate or reduce air pollutants at source. If necessary, ensure effective ventilation and use of air filters/purifiers.

# RECOMMENDATIONS

# REGULATE

The Government can regulate emission limits in the interest of health and well-being

#### **Control Frameworks**



Pre-Market Registration

Companies are to submit test reports for all products for certification before sale



**Post-Market Surveillance** 

Verfication that products sold meet the stipulated emission limits

Concern: Any single framework is insufficiently robust and noncompliant products may still be imported illegally and distributed within the local market.

#### SOLUTION



Post-Market Control & **Voluntary Declaration** 



Must be supported by a valid emission report submission



Additional administrative burden on companies are incurred due to testing and submission of report, resulting in higher costs that may be passed down to the downstream consumers.

### **Proposed Timeline**

Announcement of the implementation of Regulations

Regulations to take effect after 2 years to give manufacturers enough time to make changes







At least 6 months for suppliers and users to deplete existing stocks

# RECOMMENDATIONS

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# **INCENTIVISE**

Incentivise the industry to supply, manufacture and adopt low emitting products and solutions.



#### Accreditation

Recognise and accredit industry stakeholders that supply or employ low emitting products or solutions to create greater awareness of availability of such products and solutions.

Example: Additional procurement considerations for contractors or vendors using low emitting products.

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# COLLABORATE

Foster greater industry-public sector collaboration to create awareness and availability of low emitting solutions.



Put Together a Database of Low Emitting Products and Solutions Industry stakeholders may use the database as a reference to source for low emitting products and solutions.

They can also leverage knowledge sharing sessions to engage with fellow industry players on how to identify, acquire and use low emitting products.



Encourage Innovation and Adoption of Low Emitting Products

By facilitating international trade of low emitting products and innovative solutions.

# Acknowledgements:

Brought to you by the Alliance for Action on Sustainable Spaces:







Resource Panel:





Supporting Partners:







