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Date: 12 October 2021

Registrar, Board of Architects
Registrar, Professional Engineers Board
President, Singapore Institute of Architects
President, Institution of Engineers, Singapore
President, Association of Consulting Engineers, Singapore
President, ASHRAE Singapore Chapter
President, Air-Conditioning & Refrigeration Association
Chief Executives, BCA-Registered Contractors for Air-Conditioning, Refrigeration & Ventilation Works
Designated Company Representatives, Registered Air-Conditioner and Refrigerator Suppliers under the Energy Conservation Act (ECA)
Chief Executives, Corporation Representatives and Energy Managers, Registered Corporations under the ECA

Dear Sir/Mdm

ENVIRONMENTAL PROTECTION AND MANAGEMENT (AMENDMENT) BILL TO MITIGATE EMISSIONS OF REFRIGERANTS WITH HIGH GLOBAL WARMING POTENTIAL (GWP) USED IN REFRIGERATION AND AIR-CONDITIONING (RAC) EQUIPMENT

1 On 13 September 2021, the Environmental Protection and Management (EPM) (Amendment) Bill was passed in Parliament.

2 From 1 October 2022, NEA will enact legislation to mitigate the emission of hydrofluorocarbons (HFCs) with high GWP¹ that are used as refrigerants in RAC equipment. The requirements are:

| Requirements | Additional information |
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| <p>Restriction on supply of new² regulated RAC equipment that use high-GWP refrigerants</p> <p>From 1 October 2022</p> <p><u>Importers and manufacturers must not import or supply the following types of RAC equipment in Singapore:</u></p> <ul style="list-style-type: none"> • Household air-conditioners³ that use refrigerants with GWP of more than 750 • Household refrigerators⁴ that use refrigerants with GWP of more than 15 | <ul style="list-style-type: none"> • NEA will be implementing an online registration system before October 2022 for companies to register their company and RAC equipment models with NEA. More details on the online registration system will be provided in due course. • RAC equipment models and suppliers already registered under NEA's Mandatory Energy Labelling Scheme (MELS) will not be required to register again under this requirement. • NEA, Economic and Development Board (EDB) and Building and Construction Authority (BCA) administer grants to support and incentivise companies to adopt climate-friendly water-cooled chillers before the |

¹ GWP of the refrigerant will be aligned with the Fifth Assessment Report of the United Nation's (UN) Intergovernmental Panel on Climate Change (IPCC).

² Existing equipment already installed will not be affected by this restriction.

³ Single-phase, non-ducted, single-split or multi-split room air-conditioners, with cooling capacity of 17.6kW or lower. Single-phase variable refrigerant flow (VRF), casement, and window type air-conditioners are excluded from the scope.

⁴ Single-phase refrigerators with an adjusted volume of up to 900 litres.

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| <ul style="list-style-type: none"> Water-cooled chillers⁵ that use refrigerants with GWP of more than 15. <p><u>Suppliers of regulated RAC equipment must:</u></p> <ul style="list-style-type: none"> Register themselves and their supplied regulated goods with NEA Maintain and submit proper sales records of their supplied regulated goods <p><u>End-users importing regulated water-cooled chillers for their own use without going through a registered supplier must</u></p> <ul style="list-style-type: none"> Register their regulated water-cooled chillers with NEA. | <p>restriction comes into force in 2022. More information on the grants is available at this link.</p> <ul style="list-style-type: none"> A 1-year transition period will be provided to allow the supply of existing goods (imported or manufactured before the effective date of the regulation). |
| <p>Requirements for GHG works</p> <p>From 1 October 2022</p> <p><u>Companies that install, maintain or decommission water-cooled chillers must:</u></p> <ul style="list-style-type: none"> Register as a RAC servicing company with NEA Employ at least one certified chiller technician and ensure that installation, maintenance, and decommissioning works on water-cooled chillers that involves HFC refrigerant handling (regulated RAC servicing works) are carried out with/directly supervised by at least one certified chiller technician Maintain and adhere to the policies, procedures, and processes of the servicing company for carrying out regulated RAC servicing works, and provide adequate equipment for such works Maintain and submit proper records of regulated RAC servicing works | <ul style="list-style-type: none"> End-users of water-cooled chillers must engage registered RAC servicing companies to carry out regulated RAC servicing works. Chiller technicians will need to attend a chiller refrigerant handling course conducted by Temasek Polytechnic and pass an assessment to be a certified chiller technician. Chiller servicing companies are encouraged to send their chiller technicians to attend the course early to ensure that their chiller technicians are certified before 1 October 2022. Further details on the course can be found at: <ul style="list-style-type: none"> 1) Details of course for chiller refrigerant handling . 2) Registration for course on chiller refrigerant handling. The certification of chiller technicians will be valid for 3 years from date of certification⁶. Chiller technicians can attend a recertification course conducted by Temasek Polytechnic to be recertified. More details on the recertification course will be provided when it is ready. NEA will be launching an online registration system before October 2022 for companies carrying out chiller servicing works to register with NEA and provide details of their certified chiller technicians. The list of registered servicing companies would be made available on NEA's website. More details on the online registration system will be provided when it is ready. |
| <p>Mandatory collection and proper treatment of spent HFC refrigerants</p> <p>From 1 October 2022</p> | <ul style="list-style-type: none"> NEA will mandate the collection and proper treatment of spent refrigerants from decommissioned RAC equipment under the Environmental Public Health Act and its Regulations. Operators of refrigerant treatment facilities and e-waste recyclers who collect and treat spent |

⁵ Of cooling capacity equal to or more than 1,055kW and used for one or more purposes that include air-conditioning.

⁶ To encourage companies to send their chiller technicians to be certified early, for chiller technicians certified before 1 October 2022, the validity of certification will expire only on 30 September 2025, 3 years from 1 October 2022.

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| <p><u>Companies that install, maintain, or decommission water-cooled chillers must:</u></p> <ul style="list-style-type: none"> • Recover spent refrigerants with GWP of more than 15 from water-cooled chillers during decommissioning works. • Ensure that the spent refrigerants are sent to a treatment facility authorised by NEA <p>From 1 July 2021</p> <p><u>Companies that install, maintain, or decommission household air-conditioners must:</u></p> <ul style="list-style-type: none"> • Ensure that decommissioned air-conditioners are sent to licensed e-waste recyclers | <p>refrigerants will have to apply and obtain a Toxic Industrial Waste Collector (TIWC) license from NEA.</p> <ul style="list-style-type: none"> • Further information on the list of TIWC license holders authorised to collect and treat spent refrigerants will be provided on NEA's website before October 2022. • Under the Resource Sustainability Act, e-waste recyclers, who take in household RAC equipment for recycling, are already required to recover refrigerants with GWP of more than 15 and are prohibited from venting the spent refrigerants to the environment. The list of licensed e-waste recyclers is on NEA's website at https://go.gov.sg/licensed-recyclers. |
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3 For any clarification, please contact Ms Weng Shiya (email: Weng_Shiya@nea.gov.sg), or Ms Jane Ng (email: Jane_Ng@nea.gov.sg)

Yours faithfully
(Transmitted via email)



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