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For discussion on 5 February 2024

Proposal to Regulate and Phase Down Hydrofluorocarbons for Implementation of the Kigali Amendment to the Montreal Protocol

PURPOSE

This paper seeks Members' views on our proposals to regulate and phase down the production and consumption of hydrofluorocarbons (HFCs) in Hong Kong for fulfilling obligations under the Kigali Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer¹. To effect our proposal, we plan to amend the Ozone Layer Protection Ordinance (Cap. 403) (OLPO)² and three existing regulations under the OLPO as well as make two new regulations under the OLPO.

BACKGROUND

2. HFCs are synthetic gases, primarily used as refrigerants in air-conditioning and refrigeration equipment, and also used as fire suppressants in fire protection and other minor uses in aerosol, solvent and foam insulation applications. They are used as substitutes for chlorofluorocarbon (CFC) and hydrochlorofluorocarbon (HCFC) refrigerants as well as halon fire suppressants, which had already been phased out under the Montreal Protocol due to their ozone-depleting properties. Although HFCs are not ozone-depleting substances (ODSs), some of them are powerful greenhouse gases with high global warming potential (GWP)³, up to 14,800 times that of carbon dioxide (CO₂), aggravating significantly the global warming problem.

¹ https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=XXVII-2-f&chapter=27&clang=en

² The OLPO was enacted in 1989 to prohibit the manufacture of ODSs and control their import and export, so as to fulfil our international obligations under the Montreal Protocol.

³ It is developed to allow comparisons of the global warming impacts of different gases. Specifically, it is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of carbon dioxide. The higher the GWP, the more adverse climate impact the gas causes.

3. In Hong Kong, HFCs are used for charging up air-conditioning and refrigeration equipment, and fire suppression system during installation, servicing and maintenance. As Hong Kong has no manufacture of HFCs, the HFCs consumed locally are imported from the Mainland and overseas countries such as Japan, Singapore and the United States (US).

4. The Kigali Amendment that entered into force in 2019 seeks, inter alia, to phase down the annual production and consumption⁴ of 18 HFCs with high GWP listed in **Annex 1**. Apart from the HFC phase-down, parties to the Kigali Amendment are required to: (i) implement a licensing system for the import and export of new, used, recycled and reclaimed⁵ HFCs which are to be controlled; and (ii) report the import, export and production statistics to the United Nations Environment Programme (UNEP)'s Ozone Secretariat annually. There is also a trade control provision where parties to the Kigali Amendment shall not trade the controlled substances with non-parties, effective from January 2033. The global phase-down is expected to avoid up to 0.5 degree Celsius global warming by the end of this century.

5. As of end December 2023, there are 155 parties to the Kigali Amendment. Following the acceptance of the Kigali Amendment by the Central People's Government in June 2021, Hong Kong is duty-bound to phase down the local production and consumption of the 18 HFCs to prepare for adaptation of the Kigali Amendment and to fulfil its international obligations under the Montreal Protocol.

6. The respective schedules to phasedown production and consumption of HFCs, as set out in the Kigali Amendment, for developing parties (i.e. Article 5 parties, including the Mainland of China) and developed parties (i.e. non-Article 5 parties, including Hong Kong) are shown in **Annex 2**. Due to the Covid, trade consultation and implementation of the Kigali amendment were delayed. Hong Kong cannot meet the schedule under the Kigali amendment to reduce 40% consumption of HFC by 2024. Nonetheless, we have tried to catch up. Ultimately, Hong Kong is required to phase down the use of HFCs by 85% from the baseline by 2036. Details of the HFC baseline and the corresponding phase-down figures are shown in **Annex 3**.

THE PROPOSAL

7. As per the phase-down schedules set out by the Kigali Amendment and to give time for local stakeholders to adjust their operations, our proposal comprises

⁴ The annual production and consumption of HFCs are measured in total CO₂ equivalent (i.e. net weight metric tonnes of HFCs multiplied by their GWP). Consumption is defined as the production and import of HFCs into a given place, less the amount of export.

⁵ Recycling refers to the re-use of a recovered controlled substance following a basic cleaning process, such as filtering and drying. For refrigerants, recycling normally involves recharge back into equipment "on-site". Reclamation refers to re-processing and upgrading of a recovered controlled substance through such mechanisms as filtering, drying, distillation and chemical treatment in order to restore the substance to a specified standard of performance. It often involves processing "off-site" at a central facility.

three control strategies aiming at phasing down the HFCs in an orderly fashion and facilitating smooth transition to use low-GWP alternatives⁶. The first strategy is to control the overall production and consumption of HFCs in Hong Kong through prohibiting the manufacture and through licensing and quota control on import and export of HFCs. This is the key control strategy to ensure Hong Kong meeting the phasedown schedules as required by the Kigali Amendment. The second and third control strategies serve to assist the trade to reduce the demand for high-GWP HFCs that are commonly used at present, and facilitate a smooth transition to adopt low-GWP alternatives. Similar control strategies are being implemented in overseas countries. Details of the three control strategies are set out in the ensuing paragraphs.

Control Strategy 1 - Control the overall production and consumption of HFCs through prohibiting the manufacture and through licensing and quota control on import and export

Amendment of OLPO

8. We will extend the control provisions of the OLPO⁷ to cover HFCs for implementing the requirements of the Kigali Amendment. The new control provisions include:

- (i) add the 18 types of HFCs (“Scheduled HFCs”) under the control of the Kigali Amendment (as shown in Annex 1) as scheduled substances in the Schedule of the OLPO;
- (ii) prohibit the manufacture⁸ of Scheduled HFCs in Hong Kong; and
- (iii) control the import and export of Scheduled HFCs in bulk through a licensing and quota system.

9. Hong Kong has no manufacture of HFCs. The prohibition of manufacture ensures that Hong Kong will not violate the phase down schedule for HFC production as required by the Kigali Amendment.

10. A licensing and quota system will be implemented to limit the maximum retained import (measured as CO₂ equivalent tonnes) of Scheduled HFCs, in accordance with the phase down schedule for HFC consumption as required by the Kigali Amendment. Importers and exporters of Scheduled HFCs in bulk will be required to register with the Environmental Protection Department (EPD) and submit an application for an import or export licence prior to the importation or

⁶ Various countries have set limits to GWP values ranging from 15 to 750 factoring in local government policies and regional consumer marketing needs.

⁷ Under the OLPO, all the import and export of ODSs are required to be covered by valid import and export licence, and the import quantity is controlled by an import quota system.

⁸ Recycling or reclamation is not considered as “manufacture”.

exportation. Any import of Scheduled HFCs, except that with a declaration for re-export, must be covered by a sufficient amount of quota and a valid import licence.

11. We propose to split the import quota available in each year into two parts, namely the normal quota and the free quota, at the ratio of 70% to 30%. Normal quota will be allocated on a pro rata basis to registered importers based on their performance of total retained import of HFCs in the past year(s). Free quota will be allocated to newly registered importers or existing registered importers who have exhausted their normal quota in that year. Initial normal quota allocation will be based on applicant's retained import in the immediate previous two years. All quota units are calculated in terms of CO₂ equivalent tonnes.

12. Due to the extremely high GWP of HFC-23, we propose to ban any import of HFC-23 outright instead of going through a phase-down, except that for re-export purpose, with an exemption for maintenance of ultra-low temperature refrigeration system and laboratory research. The proposed ban could discourage the use of equipment relying on HFC-23 and save the import quota to other applications.

13. Taking into account the time required in legislative amendment, we propose that the prohibition of manufacture and the licensing and quota control will commence in the second half of 2025. This will prepare Hong Kong to fully comply with the phase down schedules as required by the Kigali Amendment starting from the calendar year of 2026 at the earliest. It should be highlighted that early implementation of the Kigali Amendment is pivotal as it would give a clear and timely signal to the trade to adjust their operations so as to reduce reliance and use of HFCs. More substitutes for HFCs are already starting to appear in the market.

Control Strategy 2 – *Accelerate the transition from the use of high-GWP product and equipment to low-GWP alternatives by restricting the supply of high-GWP product and equipment in the market*

New Regulation under OLPO

14. At present, HFC-containing refrigerant and fire suppressant are used extensively in Hong Kong. To reduce HFC consumption, we propose to restrict the supply of high-GWP product and equipment in the market. This will be done by introducing a new regulation under the OLPO to prohibit the supply of product and equipment using HFCs with GWP greater than the prescribed limit. The new regulation will include the following provisions: -

- (i) empower the Director of Environmental Protection (DEP) to declare, by gazette, the type of air-conditioning and refrigeration (and heat pump), and fire suppression system as “Restricted Equipment”;

- (ii) empower the DEP to specify, by gazette, the GWP limit of the refrigerant or fire suppressant which the Restricted Equipment is designed to operate on;
- (iii) prohibit the import, manufacture, supply and sale of Restricted Equipment containing or designed to operate on any refrigerant or fire suppressant with GWP value exceeding the specified GWP limit by a specified effective date; and
- (iv) impose labelling requirements for Restricted Equipment on their importers, manufacturers, suppliers and distributors.

15. The initial list of Restricted Equipment and, their respective GWP limits and effective dates for prohibition of import and manufacture as well as prohibition of subsequent sale, supply, offer for sale or offer for supply are proposed as shown in **Annex 4**. The list is drawn up by making reference to the GWP limits imposed by overseas countries, like the European Union (EU), US, Japan and Singapore. The Government will closely monitor the global development of low-GWP technologies, and review and update the list of Restricted Equipment and the GWP limits from time to time in consultation with the trade. The new regulation will also empower the DEP to issue, by gazette, codes of practice⁹ to list out and specify the calculation methodology of GWP for the refrigerant or fire suppressant used in the Restricted Equipment.

16. The labelling requirement serves to facilitate enforcement and encourage compliance by all parties along the supply chain. It will also increase consumers' awareness on the regulatory requirement and affect their purchasing choices towards low-GWP product and equipment. Similar labelling requirements are being practised in EU, US and UK. A label shall contain information of the type of refrigerant or fire suppressant contained or intended for use in the product, the GWP value of the refrigerant or fire suppressant, the date of manufacture and the date for the ban of sale / supply. With date of manufacture and the date for the ban of sale, the label aims to alert customers of a product / equipment that will likely be more restrictive and costly in subsequent maintenance. This labelling requirement does not apply to non-HFC based equipment.

⁹ To be issued under the amended OLPO

Control Strategy 3 – Drive recycling of refrigerant and fire suppressant through development of recycling and management programme

New Regulation under OLPO

Refrigerant

17. Refrigerant recovery and recycling during equipment maintenance can reduce the demand of new refrigerant for refilling the equipment after repairing. It can also prevent the refrigerant from venting out to the atmosphere during equipment maintenance and decommissioning, thus reducing the environmental impact. Moreover, the recycled refrigerant, upon cleaning and purification, could become an additional supply of refrigerant that is not controlled by quota in the market. To ensure the trade to practise refrigerant recovery and recycling, we propose to introduce a new regulation under the OLPO to: -

- (i) define any air-conditioning and refrigeration system with refrigerant charge over 50 kg as “Regulated Equipment”; and
- (ii) mandate recovery of any refrigerant that is a scheduled substance (including ODSs and HFCs) or its blend (“Scheduled Refrigerant”) from any Regulated Equipment during equipment maintenance, servicing, and at time of equipment decommissioning and prohibit intentional venting.

18. The threshold of 50-kg refrigerant charge is proposed to cover large size stationary air-conditioning and refrigeration systems, basically including chillers commonly used in medium to large size premises and centralised refrigeration system in supermarkets and cold storage warehouses. At this stage, smaller equipment containing 50 kg or less refrigerant charge are not included in this requirement.

19. To ensure the legislative requirements are duly observed, the responsibilities of equipment owner and service contractor (who is the person carrying out refrigerant handling work) will be clearly defined under the regulation. Their responsibilities are detailed in **Annexes 5 and 6**.

Fire Suppressant

20. Taking into account the comments and feedbacks received during consultation, we propose to introduce similar control of prohibition of intentional venting on fire suppressant that is a scheduled substance (including halons and HFCs) used in fire suppression system during system maintenance, servicing, and at time of system decommissioning.

21. We propose that mandatory recovery and prohibition of intentional venting as set out in paragraphs 17 to 20 to commence in the second half of 2025,

taking into account the time required in registration of regulated equipment and service contractor.

Offence and Penalty

22. The offence and penalty for the various new regulatory controls were initially proposed as listed in the public consultation document available at the EPD website at the following link:

https://www.epd.gov.hk/epd/sites/default/files/epd/english/environmentinhk/air/pub_consult/files/rpdh_consult_eng.pdf

23. No major adverse comment was received during the public consultation. With a view to strengthening deterrence, we plan to increase the penalty level of the offences under the two new regulations. The existing and proposed new penalties are set out in **Annex 7**.

Further supporting measures - producer responsibility scheme

24. To increase the rate of refrigerant recovery and recycling, one idea is to introduce a mandatory producer responsibility scheme on the import of Scheduled Refrigerants and/or equipment pre-charged with Scheduled Refrigerants to place primary responsibility for the cost of refrigerant recovery and recycling on importers and users of equipment, so as to support service contractors and facilities that provide refrigerant recovery and recycling services.

25. The feasibility of the scheme will be explored and further consultation with the trade will be conducted at a later stage.

PUBLIC CONSULTATION

26. Since 2021, we have actively discussed with the relevant trade, including trade associations, equipment suppliers and HFC importers, to introduce low-GWP product and equipment into Hong Kong and to alert equipment users and consumers of the future limited supplies of high-GWP refrigerants for maintenance or repair purposes due to the requirements of the Kigali Amendment. An inter-departmental task force¹⁰ was formed in 2022 to draw up the control proposal based on the information gathered from the trade.

¹⁰ Comprising Architectural Services Department, Electrical and Mechanical Services Department, Customs and Excise Department, Census and Statistics Department, Trade and Industry Department, Labour Department, Transport Department, Fire Services Department, Buildings Department, Government Laboratory, EPD and Environment and Ecology Bureau.

27. Public engagement was launched from 10 July 2023 to 9 September 2023 to tap the view of the trade and general public. The details of the control approach, including the aforementioned three control strategies and the corresponding legislative proposal, were set out in the consultation document (see the weblink at paragraph 22 for the document) which was sent to more than 3 000 stakeholders, including the relevant importers, suppliers, service providers and users of product and equipment, chemical waste collectors, trade associations, engineering consultants, trade unions, green groups, professional bodies and government departments. In addition, we held a series of consultation meetings, including two public consultation forums and a number of consultation meetings with the major trade associations and equipment suppliers.

28. The stakeholders noted Hong Kong's obligation under the Kigali Amendment. The control strategies are generally supported by them. The major comments and suggestions received are more about how to implement the control strategies, and include matters such as:

- (i) more time is required for complying with the proposed prohibition of import and supply / sale of for certain product and equipment due to the need of clearing the existing stock for room air-conditioner and home refrigerator, adjustment of the production line for private car air-conditioning, and the equipment delivery for room air-conditioner and chillers in new development projects or chiller replacement projects could be several years after the supply agreement is entered;
- (ii) more time is required for complying with the labelling requirement, and some of the trade queried the need of labelling;
- (iii) more time is required to mitigate the safety risk of the use of low-GWP refrigerants that have higher flammability properties, and the need of provision of guidance by the Government on the use of these refrigerants;
- (iv) trading of import quota should not be allowed;
- (v) provide exemption from the prohibition of sale/supply for room air-conditioner and home refrigerator/freezer that have already been imported into Hong Kong before the new Regulation takes effect;
- (vi) provide exemption from the prohibition of import and supply for room air-conditioner and chiller with supply agreement entered before the new Regulation takes effect; and
- (vii) Government should provide support to the refrigerant handling technicians to upgrade their skill.

We will adjust the control proposal in Annex 4 to address the comments and feedbacks from the trade.

LEGISLATIVE TIMETABLE

29. We aim to consult the Legislative Council Panel on Environmental Affairs on the legislative proposal in late February 2024, and plan to introduce the legislative amendments to the Legislative Council in the second quarter of 2024.

ADVICE SOUGHT

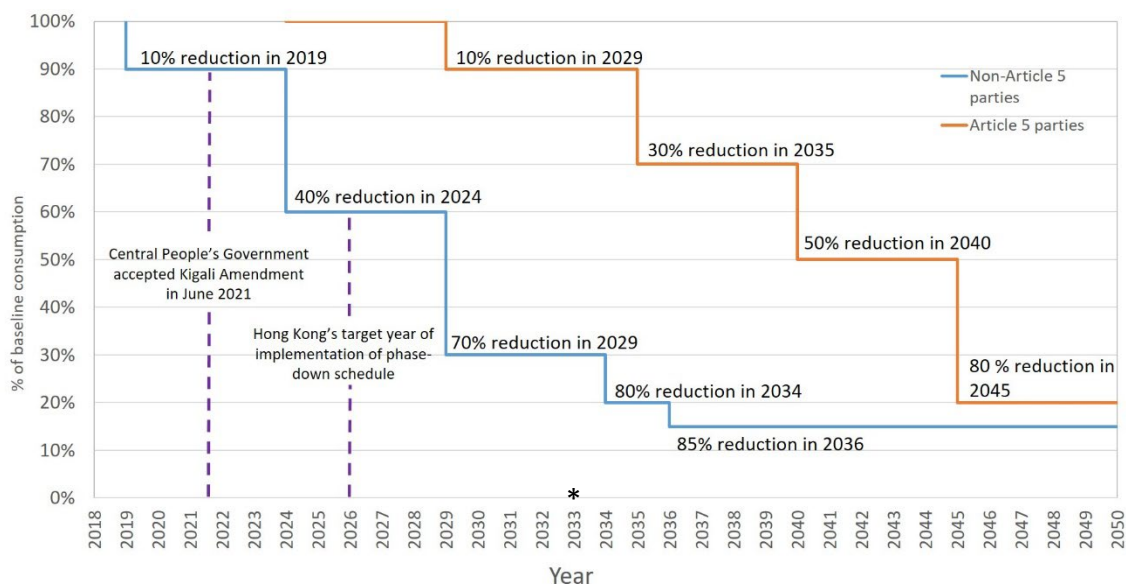
30. Members are invited to comment on the proposal set out in paragraphs 7 to 25 above.

Environment and Ecology Bureau
February 2024

Hydrofluorocarbons (HFCs) Controlled under the Kigali Amendment

Group	Substance	100-Year Global Warming Potential
<i>Group I</i>		
CHF ₂ CHF ₂	HFC-134	1 100
CH ₂ FCF ₃	HFC-134a	1 430
CH ₂ FCHF ₂	HFC-143	353
CHF ₂ CH ₂ CF ₃	HFC-245fa	1 030
CF ₃ CH ₂ CF ₂ CH ₃	HFC-365mfc	794
CF ₃ CHFCF ₃	HFC-227ea	3 220
CH ₂ FCF ₂ CF ₃	HFC-236cb	1 340
CHF ₂ CHFCF ₃	HFC-236ea	1 370
CF ₃ CH ₂ CF ₃	HFC-236fa	9 810
CH ₂ FCF ₂ CHF ₂	HFC-245ca	693
CF ₃ CHFCHFCF ₂ CF ₃	HFC-43-10mee	1 640
CH ₂ F ₂	HFC-32	675
CHF ₂ CF ₃	HFC-125	3 500
CH ₃ CF ₃	HFC-143a	4 470
CH ₃ F	HFC-41	92
CH ₂ FCH ₂ F	HFC-152	53
CH ₃ CHF ₂	HFC-152a	124
<i>Group II</i>		
CHF ₃	HFC-23	14 800

Phase-down Schedules under the Kigali Amendment



Remark (*) – Parties to the Kigali Amendment are banned from trading the controlled HFCs with a non-party, beginning from January 2033.

**Hydrofluorocarbon (HFC) Baseline and Phase-down Schedule
for Hong Kong**

- (i) Ultimately, Hong Kong will be required to phase down the use of HFCs by 85% from the baseline by 2036.

- (ii) Being an advance economy, Hong Kong should follow the arrangements for non-Article 5 parties to the Kigali Amendment. The hydrofluorocarbon (HFC) consumption baseline figures¹¹ and the suggested phase-down schedule for Hong Kong are illustrated in the table and the chart below. The obligation to phase down the consumption will only apply to Hong Kong when Hong Kong has completed legislation amendments and commenced licensing and quota control on the import/export of HFCs for implementation of the Kigali Amendment.

	Unit: kilotonnes CO ₂ -eq
HFC baseline	1682
60% of baseline (2024-2028)	1009
30% of baseline (2029-2033)	504
20% of baseline (2034-2035)	336
15% of baseline (2036 and thereafter)	252

- (iii) As there is no HFC production in Hong Kong, the production phase-down schedule will not apply to Hong Kong.

¹¹ In accordance with the Kigali Amendment, the HFC consumption baseline level of Hong Kong is calculated as average of annual HFC consumption for 2011-2013 plus 15% of the HCFC consumption baseline (calculated based on 1989 HCFC consumption plus 2.8% of 1989 CFC consumption). Import and export statistics from the Census and Statistics Department are used in the calculations.

List of Proposed Restricted Equipment and their Respective GWP Limits and Effective Dates for Prohibition of Import and Manufacture as well as Prohibition of Subsequent Sale, Supply, Offer for Sale or Offer for Supply

Category of Restricted Equipment ⁽¹⁾	GWP Limit	Effective date	
		Prohibition of Import or Manufacture	Prohibition of Sale, Supply, Offer for Sale or Offer for Supply
Room air-conditioner (split type or window type, with rated cooling capacity ≤ 7.5kW)	750	1 Jan 2025	1 Jan 2026
Household refrigerator, freezer and refrigerator combined with freezer	150	1 Jan 2025	1 Jan 2026
Commercial refrigeration – stand-alone equipment ⁽²⁾	150	1 Jan 2025	1 Jan 2026
Commercial refrigeration – condensing unit	1500	1 Jan 2025	1 Jan 2026
	150	1 Jan 2028	1 Jan 2028
Commercial refrigeration – multipack centralised system (also known as supermarket system)	1500	1 Jan 2025	1 Jan 2026
	150	1 Jan 2028	1 Jan 2028
Cold storage warehouse system (including all types of refrigeration system in cold storage warehouse)	1500	1 Jan 2025	1 Jan 2026
	150	1 Jan 2028	1 Jan 2028
Air-cooled chiller	750	1 Jan 2025	1 Jan 2026
Water-cooled chiller	150	1 Jan 2025	1 Jan 2026
Motor vehicle air-conditioning in private car (as defined in the Road Traffic Ordinance, Cap.374)	150	Manufacture year 2027	Manufacture year 2027
Fire suppression system	15	1 Jan 2025	1 Jan 2026

Note:

- (1) The restriction will not apply to second-hand product/equipment, i.e. already owned by a local end user, that was imported or manufactured before the respective effective dates. Import/manufacture and sale/supply of parts and components that are used for repairing and maintenance of existing product/equipment are not subject to control.
- (2) Commercial refrigeration stand-alone equipment means a self-contained plug-in refrigeration equipment where all refrigeration components and refrigerant circuit

are integrated within its structure. It includes commercial refrigerator, freezer, vending machine, ice machine, food and drink dispensing machine, water cooler, display case and cabinet.

Requirements on Equipment Owners

- (1) All owners of existing Regulated Equipment (i.e. in existence at the time when the proposed regulation comes into operation) shall register their Regulated Equipment with Environmental Protection Department (EPD) in a format specified by the EPD within 6 months from the effective date of the proposed regulation. Owners of any newly installed Regulated Equipment (i.e. installed after the effective date of the proposed regulation) shall register their Regulated Equipment with the EPD within 2 months upon completion of installation. To enhance enforcement efficiency, we will explore the possibility of introducing a fixed penalty notice system¹² against the contravention of this registration requirement.
- (2) Owners of Regulated Equipment operating on Scheduled Refrigerant must engage Registered Refrigerant Handling Contractors for any type of work involving handling of Scheduled Refrigerant. If an equipment owner uses in-house staff to handle Scheduled Refrigerant, the staff or the company concerned shall register with the EPD.

For avoidance of doubt, an owner of Regulated Equipment is defined as the person who has the management or control of the Regulated Equipment.

¹² To be set up under the amended OLPO

Requirements on Registered Refrigerant Handling Contractors

- (1) A person or company must register with the Environmental Protection Department (EPD) as a “Registered Refrigerant Handling Contractor” if it carries out any Scheduled Refrigerant handling work, including installation and commissioning, inspection and leakage checking, maintenance or servicing, refrigerant refilling, refrigerant recovery or decanting, and decommissioning, on any Regulated Equipment that contains or is designed to contain Scheduled Refrigerants.
- (2) A Registered Refrigerant Handling Contractor has the obligations to provide adequate and properly maintained equipment, and establish and maintain policies and operating procedures for its technicians for the work conducted.
- (3) A Registered Refrigerant Handling Contractor shall arrange certified technician (who holds a certificate issued by training institutes as recognised by the Authority indicating successful completion of a refrigerant handling course) on-site for carrying out the refrigerant handling work.
- (4) A Registered Refrigerant Handling Contractor shall cause or arrange for the recovered refrigerant to be disposed of at a licensed waste disposal facility to have them reclaimed or destroyed, unless the refrigerant is charged back to the same equipment or transferred for use in other equipment owned by the same owner.
- (5) A Registered Refrigerant Handling Contractor shall, within 2 months after completion of each refrigerant handling work, submit the work record to the EPD in a format specified by the EPD.

Existing and Proposed New Penalties for the Two New Regulations

	Existing Penalties (Proposed in public consultation paper)	Proposed New Penalties
<i>Control Strategy 2 - Accelerate the transition from the use of high-GWP product and equipment to low-GWP alternatives by restricting the supply of high-GWP product and equipment in the market</i>		
Any person who imports or manufactures Restricted Equipment containing or designed to operate on any refrigerant or fire suppressant with GWP value exceeding the specified GWP limit	Maximum fine of \$1,000,000 and imprisonment for 2 years	No change from public consultation paper
Any person who sells, supplies, offers for sale or offers for supply of Restricted Equipment containing or designed to operate on any refrigerant or fire suppressant with GWP value exceeding the specified GWP limit	Maximum fine of \$1,000,000 and imprisonment for 2 years	No change from public consultation paper
Importer, manufacturer, supplier or distributor who contravenes the requirements of labelling	Maximum fine of \$100,000	No change from public consultation paper
<i>Control Strategy 3 – Drive recycling of refrigerant and fire suppressant through development of recycling and management programme</i>		
Any person who allows or causes any Scheduled Refrigerant to release into the atmosphere without valid due diligence defence (*)	Maximum fine of \$100,000	Maximum fine of \$200,000 and imprisonment for 6 months. If offence continues, liable to a fine of \$10,000 for each day.
Owner of Regulated Equipment who fails to engage Registered Refrigerant Handling Contractor to carry out work involving handling of Scheduled Refrigerant (*)	Maximum fine of \$100,000;	Maximum fine of \$200,000 and imprisonment for 6 months. If offence continues, liable to a fine of \$10,000 for each day.

	Existing Penalties (Proposed in public consultation paper)	Proposed New Penalties
Any person who carries out work involving handling of Scheduled Refrigerant without registration (*)	Maximum fine of \$100,000	Maximum fine of \$200,000 and imprisonment for 6 months. If offence continues, liable to a fine of \$10,000 for each day.
Registered Refrigerant Handling Contractor who fails to discharge specified duties (including provision of adequate and properly maintained equipment, establishing and maintaining policies and operating procedures to its technicians, etc.) (*)	Maximum fine of \$100,000	Maximum fine of \$200,000 and imprisonment for 6 months. If offence continues, liable to a fine of \$10,000 for each day.
Registered Refrigerant Handling Contractor who contravenes the reporting requirement (*)	Maximum fine of \$100,000	Maximum fine of \$200,000 and to imprisonment for 6 months. If offence continues, liable to a fine of \$10,000 for each day.
Owner of Regulated Equipment who fails to register their Regulated Equipment within the specified period (*)	A fixed penalty notice system will be explored.	A fixed penalty notice system will be explored.

Note (*): it is proposed that the same offence and penalty will be applied to the regulatory controls on prohibition of intentional venting of fire suppressant as set out in paragraph 20 of this paper.