

# NEA's Licensing Controls on Hydrofluorocarbons (HFCs)

20 Nov 2018

Pollution Control Department

# Overview

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4. TradeNet Permit Declarations

# 1 Objective

## Objective

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- To inform the industry on NEA's licensing control and TradeNet Permit declarations for the controlled HFCs (including blends/mixtures comprising one or more of the HFCs) which takes effect from 1 Jan 2019 onwards
- Industry consultations have been conducted by NEA prior to the implementation of the licensing controls for the controlled HFCs

# 2 Kigali Amendment

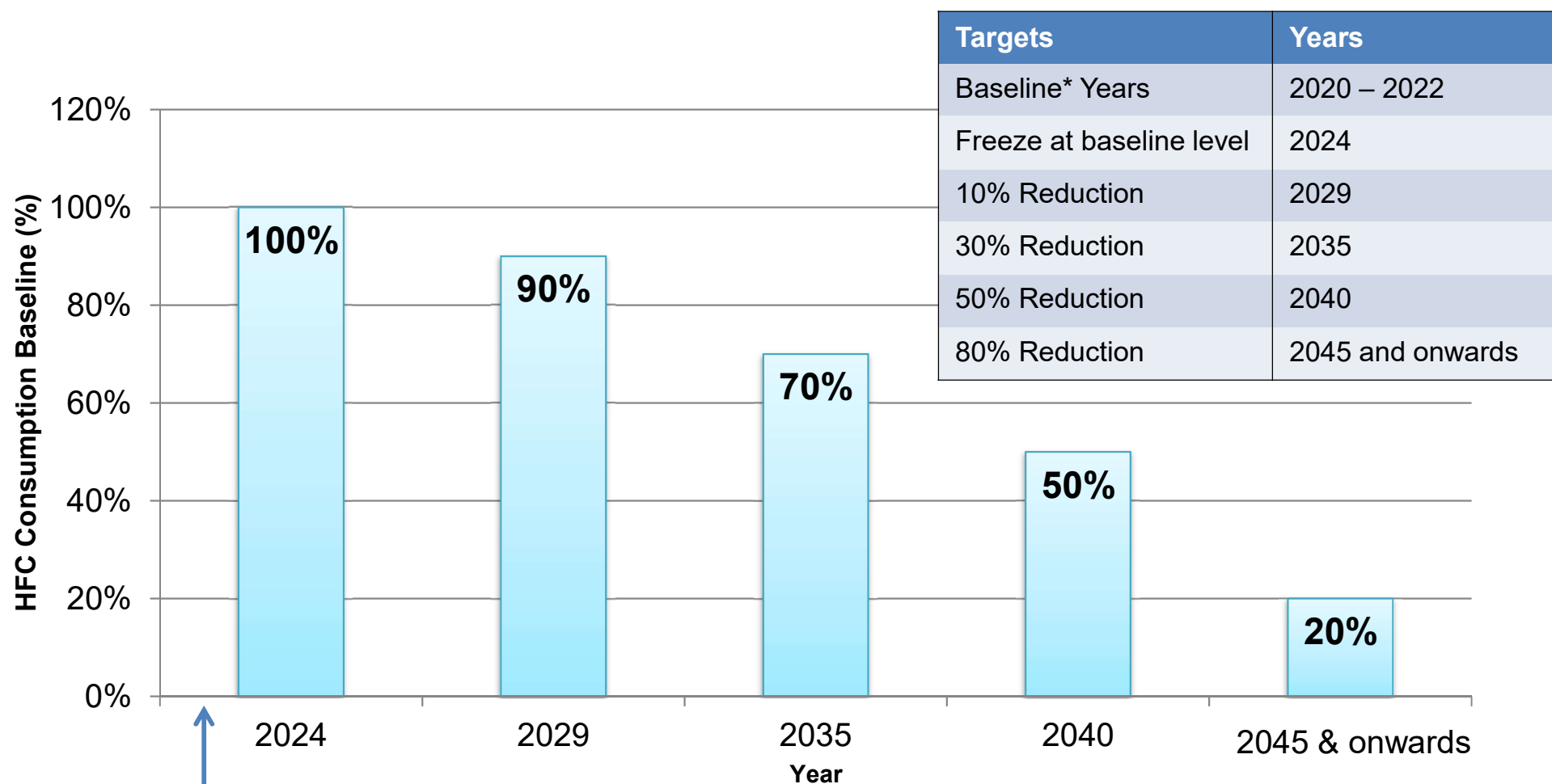
# Background

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- Singapore is a Party to the Montreal Protocol that aims to reduce and eliminate the production and consumption of Ozone Depleting Substances (ODS).
- At the 28<sup>th</sup> Meeting of the Parties (MOP-28) to the Montreal Protocol held in October 2016, the **Kigali Amendment** was adopted by Parties to phase-down the production and consumption of HFCs. *(Note: HFCs are non-ozone depleting but are greenhouse gases (GHG) that has a global warming potential, contributing to other climate issues).*
- As of 7 Nov 2018, there are 60 Parties to the Amendment.  
<http://ozone.unep.org/countries/ratifications>
- Singapore **has not ratified** the Kigali Amendment at this point of time and it is not required to comply with the obligations under the Kigali Amendment.

# Key Obligations : HFCs Consumption Phase-Down Schedule

Applicable only if Singapore becomes a Party to the Kigali Amendment



\*HFC Baseline level (in CO<sub>2</sub>-eqv) = (a) Average HFC consumption in **Year 2020-2022** + (b) 65% of HCFC baseline

## Key Obligations : HFCs Trade Ban

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- Trade ban will enter into force on **1 January 2033**, provided that there are at least 70 instruments of ratifications, acceptance or approval to the Kigali Amendment.
- Parties to the Kigali Amendment **shall not trade with Non-Parties to the Amendment** (i.e. those that have not ratified the Amendment) once the Trade ban enters into force.
- In the event that this condition has not been fulfilled by that date, the Amendment shall enter into force on the 90<sup>th</sup> day following the date on which it has been fulfilled.



## Singapore's Current Ratification Status and Approach

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- Singapore **has not ratified** the Kigali Amendment at this point of time. Thus, the HFCs phase-down schedule does not apply to Singapore for now
- Notwithstanding, in preparation to establish the national baseline level for HFCs consumption (based on 2020 – 2022 data) required by the Montreal Protocol, NEA has put in place licensing controls for the import, export and manufacture of 18 types of HFCs (including blends/mixtures).
- The licensing regime will take effect from **1 Jan 2019 onwards**.

# 3 NEA's Licensing Controls on HFCs

# NEA's Licensing Controls on HFCs

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- Companies are required to obtain a [Hazardous Substances Licence](#) from NEA prior to the manufacture, import and/or export any of the 18 controlled HFCs (inclusive of blends/mixtures that contain one or more of these HFCs) .
  - This licensing control does not apply to local sale, transport and storage of HFCs
  - There is also no quota restriction imposed on the consumption of HFCs at this point of time
- Companies can submit their licence applications online for HFCs via LicenceOne at - <https://licence1.business.gov.sg>.

# List of 18 Controlled HFCs

S/N	Chemical Name	Trade Name	S/N	Chemical Name	Trade Name
1	Difluoromethane	HFC-32*	10	Pentafluoroethane	HFC-125
2	Fluoromethane (Methyl Fluoride)	HFC-41*	11	1,1,1,2-Tetrafluoroethane	HFC-134a
3	1,1,1-Trifluoroethane	HFC-143a*	12	1,1,1,2,3,3,3-Heptafluoropropane	HFC-227ea
4	1,1-Difluoroethane	HFC-152a*	13	1,1,1,2,2,3-Hexafluoropropane	HFC-236cb
5	1,1,1,3,3-Pentafluorobutane	HFC-365mfc*	14	1,1,1,2,3,3-Hexafluoropropane	HFC-236ea
6	Trifluoromethane	HFC-23	15	1,1,1,3,3,3-Hexafluoropropane	HFC-236fa
7	1,1,2,2-Tetrafluoroethane	HFC-134	16	1,1,2,2,3-pentafluoropropane	HFC-245ca
8	1,1,2-Trifluoroethane	HFC-143	17	1,1,1,3,3-Pentafluoropropane	HFC-245fa
9	1,2-Difluoroethane	HFC-152	18	1,1,1,2,2,3,4,5,5,5-decafluoropentane	HFC-4310mee

## Common Mixtures/Blends

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- Apart from controlling the 18 HFCs in pure form, any **mixtures/blends** containing one or more of the 18 HFCs will also be controlled.
- Some examples of common blends include, but not limited to:

Common HFC Blends		
R-401A	R-417A	R-449A
R-404A	R-422A	R-450A
R-407A	R-438A	R-452A
R-407C	R-444B	R-507A
R-407F	R-446A	R-508B
R-410A	R-448A	R-513A

# Licensing Controls for Flammable HFCs

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- Besides NEA's Hazardous Substances Licence, companies are also required to obtain the following licences from SCDF for flammable HFCs :
  - Import Licence; and
  - Storage and Transportation Licence for storage and transportation of flammable HFCs above SCDF's exemption quantities
- The 5 flammable HFCs (jointly controlled by NEA and SCDF) are :
  - Difluoromethane (HFC-32)
  - Fluoromethane (Methyl Fluoride) (HFC-41)
  - 1,1,1-Trifluoroethane (HFC-143a)
  - 1,1-Difluoroethane (HFC-152a)
  - 1,1,1,3,3-Pentafluorobutane (HFC-365mfc)
- For importation of blends/mixtures containing one or more of the 5 jointly controlled HFCs and categorized under flammables, companies are required to contact SCDF for assessment and advice on the Import, Storage and Transportation Licence.

# 4 TradeNet Permit Declarations

*(With effect from 1 Jan 2019)*

# TradeNet Permit Declarations

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With effect from **1 Jan 2019**, traders and declaring agents are required to declare in the import and export permit applications for HFCs using the relevant HS Codes and NEA/SCDF Product Codes.

- a) Import and Export Permit Applications for Controlled HFCs by NEA
- b) Import Permit Application for HFCs Jointly Controlled by NEA and SCDF above SCDF exemption quantities
- c) Import Permit applications of HFCs Jointly Controlled by NEA and SCDF below SCDF exemption quantities



## (a) Import and Export of Permit Applications for HFCs Controlled by NEA

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S/N	Chemical Name	Trade Name	HS Code	NEA Product Code
1	Difluoromethane	HFC-32	<b>29033990</b> Other fluorinated, brominated or iodinated derivatives of acyclic hydrocarbons  <b>38247800</b> <u>Blends/Mixtures</u> containing perfluorocarbons or hydrofluorocarbons but not chlorofluorocarbons or hydrofluorocarbons	PCDHFC032
2	Fluoromethane (Methyl Fluoride)	HFC-41		PCDHFC041
3	1,1,1-Trifluoroethane	HFC-143a		PCDHFC143
4	1,1-Difluoroethane	HFC-152a		PCDHFC152
5	1,1,1,3,3-Pentafluorobutane	HFC-365mfc		PCDHFC365
6	Trifluoromethane	HFC-23		PCDHFC023
7	1,1,2,2-Tetrafluoroethane	HFC-134		PCDHFC034
8	1,1,2-Trifluoroethane	HFC-143		PCDHFC043
9	1,2-Difluoroethane	HFC-152		PCDHFC052

## (a) Import and Export of Permit Applications for HFCs Controlled by NEA (cont'd)

S/N	Chemical Name	Trade Name	HS Code	NEA Product Code
10	Pentafluoroethane	HFC-125	<b>29033990</b> Other fluorinated, brominated or iodinated derivatives of acyclic hydrocarbons  <b>38247800</b> <u>Blends/Mixtures</u> containing perfluorocarbons or hydrofluorocarbons but not chlorofluorocarbons or hydrofluorocarbons	PCDHFC125
11	1,1,1,2-Tetrafluoroethane	HFC-134a		PCDHFC134
12	1,1,1,2,3,3,3-Heptafluoropropane	HFC-227ea		PCDHFC227
13	1,1,1,2,2,3-Hexafluoropropane	HFC-236cb		PCDHFC233
14	1,1,1,2,3,3-Hexafluoropropane	HFC-236ea		PCDHFC235
15	1,1,1,3,3,3-Hexafluoropropane	HFC-236fa		PCDHFC236
16	1,1,2,2,3-pentafluoropropane	HFC-245ca		PCDHFC243
17	1,1,1,3,3-Pentafluoropropane	HFC-245fa		PCDHFC245
18	1,1,1,2,2,3,4,5,5,5-decafluoropentane	HFC-4310mee		PCDHFC431

## (b) Import^ Permit Application for HFCs Jointly Controlled by NEA & SCDF – **Above SCDF Exemption Quantity**

S/N	Chemical Name	Trade Name	HS Code	NEA Product Code	SCDF Exemption Quantity (Gross Weight)	SCDF Product Code
1	Difluoromethane	HFC-32	<b>29033990</b> Other fluorinated, brominated or iodinated derivatives of acyclic hydrocarbons	PCDHFC032	130 kg	SCDDFM3252G1
2	Fluoromethane (Methyl Fluoride)	HFC-41		PCDHFC041	130 kg	SCDMEF2454G1
3	1,1,1-Trifluoroethane	HFC-143a		PCDHFC143	130 kg	SCDTFE2035G1
4	1,1-Difluoroethane	HFC-152a		PCDHFC152	130 kg	SCDDFE1030G1
5	1,1,1,3,3-Pentafluorobutane	HFC-365mfc		PCDHFC365	20 litres	SCDPFB1993L2

^ As SCDF does not have licensing requirements for the export of HFCs, traders and declaring agents are to declare using NEA product codes only.

## (c) Import^ Permit Application for HFCs Jointly Controlled by NEA & SCDF – Below SCDF Exemption Quantity

S/N	Chemical Name	Trade Name	HS Code	NEA Product Code	SCDF Exemption Quantity (Gross Weight)	SCDF Product Code
1	Difluoromethane	HFC-32	<b>29033990</b> Other fluorinated, brominated or iodinated derivatives of acyclic hydrocarbons	PCDHFC032	130 kg	SCDFMGMISC
2	Fluoromethane (Methyl Fluoride)	HFC-41		PCDHFC041	130 kg	SCDFMGMISC
3	1,1,1-Trifluoroethane	HFC-143a		PCDHFC143	130 kg	SCDFMGMISC
4	1,1-Difluoroethane	HFC-152a		PCDHFC152	130 kg	SCDFMGMISC
5	1,1,1,3,3-Pentafluorobutane	HFC-365mfc		PCDHFC365	20 litres	SCDFMGMISC

^ As SCDF does not have licensing requirements for the export of HFCs, traders and declaring agents are to declare using NEA product codes only.

# Import Permit Application for 1,1-Difluoroethylene (HFC-1132a)

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With effect from 1 Jan 2019, traders and declaring agents are only required to declare for the import of 1,1-difluoroethylene (HFC-1132a) using SCDF Product Codes.

Chemical Name	Trade Name	HS Code	NEA Product Code	SCDF Exemption Quantity (Gross Weight)	SCDF Product Code
<b><u>Above SCDF Exemption Quantity</u></b>					
<b>1,1-Difluoroethylene</b>	HFC-1132a	<b>29033990</b> Other fluorinated, brominated or iodinated derivatives of acyclic hydrocarbons	-	130 kg	SCDDFE1959G1
<b><u>Below SCDF Exemption Quantity</u></b>					
<b>1,1-Difluoroethylene</b>	HFC-1132a	<b>29033990</b> Other fluorinated, brominated or iodinated derivatives of acyclic hydrocarbons	-	130 kg	SCDFMGMISC

# TradeNet Approval

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Prior approval via TradeNet system must be obtained for import and/or export of any of the 18 HFCs. Supporting documents are required during the submission of declarations in TradeNet.

## **For import declarations**

- Bill of Lading / Airway Bill (for import via sea/air)
- Invoice
- Export permit issued from the exporting country (if applicable)

## **For export declarations**

- Bill of Lading / Airway Bill (for export via sea/air)
- Invoice
- Import permit issued from the importing country (if applicable)

# iPIC Procedure

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- Similar to export of hydrochlorofluorocarbons (HCFCs), NEA will implement the **iPIC** (informal **P**rior **I**nformed **C**onsent) procedure for the 18 controlled HFCs (including blends/mixtures containing 1 or more the HFCs)
- Under the iPIC procedure, NEA-PCD (Competent Authority for Montreal Protocol) would seek prior informed consent from Competent Authority of the importing country before the export of the controlled HFCs
- Companies are required to provide NEA-PCD the following documents **at least 1 working week in advance** prior to declaration on TradeNet for export of the controlled HFCs :
  - The details of the importer (i.e. company name and importing country)
  - Types and quantities of the HFCs
  - Import permit issued from the importing country to the importer (if applicable)

# Our Environment

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