

Complete phase-out of Hydrochlorofluorocarbon (HCFC)-141b

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Source: PIB

India has successfully achieved the complete phase-out of Hydrochlorofluorocarbon (HCFC)-141 b, which **is a chemical used by foam manufacturing enterprises** and one of the most potent **ozone-depleting chemicals after Chlorofluorocarbons (CFCs)**

India's target to phase out HCFC

- India had proactively and successfully taken the challenge of the complete phase-out of Hydrochlorofluorocarbon (HCFC)-141 b, which is a chemical used by foam manufacturing enterprises by 1.1.2020.
- **Various initiatives related to HCFC are:**
 1. The Ministry of Environment, Forest and Climate Change (MoEFCC) brought out a notification in the Gazette of India through which the **issuance of import license for HCFC-141b is prohibited from 1st January 2020** under Ozone Depleting Substances (Regulation and Control) Amendment Rules, 2019 issued under the Environment (Protection) Act, 1986.
 2. HCFC-141b is not produced in the country and all the domestic requirements are met through imports. **With this notification, prohibiting the import of HCFC-141 b, the country has completely phased out the important ozone-depleting chemical.**
 3. **Simultaneously, the use of HCFC-141 b by foam manufacturing industry has also been closed** as on

1st January 2020 under the **Ozone Depleting Substances (Regulation and Control) Amendment Rules, 2014.**

- **Nearly, 50 % of the consumption of ozone-depleting chemicals in the country was attributable to HCFC-141 b in the foam sector. The Ministry adopted a structured approach to engage with foam manufacturing enterprises for providing technical and financial assistance in order to transition to non-ODS and low Global warming potential (GWP) technologies under the HCFC Phase-out Management Plan (HPMP).**
- **Around 175 foam manufacturing enterprises have been covered under HPMP out of which, 163 enterprises are covered under stage II of HPMP. The complete phase-out of HCFC 141 b from the country in the foam sector is among the first at this scale in Article 5 parties (developing countries) under the Montreal Protocol.**

Phase-out of HCFCs – the Montreal Amendment

- **Hydrochlorofluorocarbons (HCFCs) are gases used worldwide in refrigeration, air-conditioning and foam applications, but they are being phased out under the Montreal Protocol since depleting the ozone layer.**
- **HCFCs are both ODS and powerful greenhouse gases:** the most commonly used HCFC is nearly 2,000 times more potent than carbon dioxide in terms of its global warming potential (GWP). Recognizing the potential benefits to the Earth's climate, **in September 2007 the Parties decided to accelerate their schedule to phase out HCFCs.**
- **Developed countries have been reducing their consumption of HCFCs and will completely phase them out by 2020.**
- **Developing countries agreed to start their phase-out process in 2013 and are now following a stepwise reduction until the complete phase-out of HCFCs by 2030.**

About HCFC-141b

- (HCFC)-141 b is **used mainly as a blowing agent in the production of rigid polyurethane (PU) foams.**
- HCFC-141b is a colorless & transparent liquid under ordinary temperature

Benefits

The phase-out of HCFC-141b from the country has twin environmental benefits viz.

1. Assisting the **healing of the stratospheric ozone layer,** and
2. Towards the climate change mitigation due to the transitioning of foam manufacturing enterprises at this scale under HPMP to low global warming potential alternative technologies.