

Data Quality Record for Long-Term Performance Goals

Long-Term Performance Goal Text: By September 30, 2026, ensure U.S. consumption of hydrochlorofluorocarbons (HCFCs) is less than 76.2 tons per year of ozone depletion potential.

Corresponding Annual Performance Goal: Remaining U.S. consumption of hydrochlorofluorocarbons (HCFCs), chemicals that deplete the Earth's protective ozone layer, in ODP-weighted metric tons.

Goal Number/Objective: Goal 4/Objective 4.1

NPM Lead: Office of Air and Radiation (OAR)

1a. Purpose of Long-Term Performance Goal:

This long-term performance goal (LTPG) tracks the United States' annual consumption of hydrochlorofluorocarbons (HCFCs). As a Party to the Montreal Protocol, and consistent with the Clean Air Act, the United States must incrementally decrease HCFC consumption and production, culminating in a complete HCFC phaseout in 2030. HCFC consumption must be reduced to at least 99.5 percent below the baseline levels in 2020 through 2029. The current annual consumption cap of the United States for all HCFCs is 76.2 weighted metric tons of ozone depletion potential (ODP), down from the 2015-2019 target of 1,520 ODP-weighted metric tons per year. The United States' HCFC consumption baseline is 15,240 ODP-weighted metric tons effective as of January 1, 1996. A continued trend of HCFC consumption below the cap conveys the effectiveness of EPA's stratospheric protection programs. Today, we see signs that the [ozone layer](#) is healing and recovery is anticipated by 2065. Full implementation of the Montreal Protocol is [expected to prevent 443 million cases of skin cancer and 63 million cases of cataracts](#) in the United States alone.

1b. Performance Measure Term Definitions:

HCFCs: Compounds consisting of hydrogen, chlorine, fluorine, and carbon. HCFCs are one class of chemicals being used to replace chlorofluorocarbons (CFCs). They contain chlorine and thus deplete stratospheric ozone, but to a much lesser extent than CFCs. HCFCs have ODPs ranging from 0.01 to 0.1.

Consumption: A term of art that means the amount of HCFC produced, plus imports, minus exports, minus destruction, and minus amounts produced or imported for transformation. The resulting amount of consumption is effectively the amount of HCFCs newly placed on the U.S. market in a given year.

ODP: A number that refers to the relative amount of ozone depletion caused by a substance. The ODP is the ratio of the impact a chemical has on the ozone compared to the impact of a similar mass of trichlorofluoromethane (CFC-11). Thus, the ODP of CFC-11 is defined to be 1.0. Other CFCs and HCFCs have ODPs that range from 0.01 to 1.0. Metric tons of ozone-depleting substances (ODS) are weighted by their ODP, otherwise referred to as ODP tons.

1c. Unit of Measure:

The unit of measurement is metric tons per year of ODP.

2a. Data Source:

U.S. producers, importers, and exporters of ODS are required to report their ODS transactions on a quarterly, annual, and transactional basis. The ODS Tracking System tracks expended and unexpended allowances on a company-by-company basis. The ODS Tracking system is also queried to generate annual statistical reports summarizing ODS production and consumption for the entire United States. Annual reports are submitted to the United Nations Environment Programme (UNEP) Ozone Secretariat as required under Article 7 of the [Montreal Protocol on Substances that Deplete the Ozone Layer](#) (Montreal Protocol) and are the means by which the United States demonstrates its compliance with production and consumption limits and other requirements under the Montreal Protocol.

2b. Data needed for interpretation of (calculated) Performance Result:

HCFC consumption must be reduced to at least 99.5 percent below baseline levels. The annual consumption cap of the United States for all HCFCs is 76.2 ODP-weighted metric tons, down from the 2015-2019 target of 1,520 ODP-weighted metric tons per year. The United States' HCFC consumption baseline was 15,240 ODP-weighted metric tons effective as of January 1, 1996.

3. Calculation Methodology:

Data are aggregated across all U.S. companies for each individual ODS to analyze U.S. total consumption and production.

4. Quality Assurance/Quality Controls:

The ODS Tracking System is programmed to ensure consistency of the data elements reported by companies. The tracking system flags inconsistent data for review and resolution by the tracking system manager. In addition, OAR cross-checks data submitted on HCFC imports and exports by reporting companies with external data sources including data collected by Customs and Border Protection (CBP) through their Automated Commercial Environment (ACE)/International Trade Data System (ITDS) and data purchased from Descartes Datamyne™.

OAR maintains a standard operating procedures guide for the ODS Tracking System that specifies the standards for data entry and data analysis. Furthermore, OAR maintains a Quality Assurance Program Plan (QAPP) that defines and documents how data collection activities are planned, implemented, and assessed, in addition to a QA/QC Guide for reviewing ODS report submissions.

5. Data Limitations/Qualifications:

Companies are required by the Clean Air Act to report data.

6. Technical Contact:

Daniel Hopkins (OAR)

7. Certification Statement/Signature:

I certify the information in this DQR is complete and accurate.

DAA Signature Original signed by Elizabeth (Betsy) Shaw Date 5/10/2022