

INFORMATION COLLECTION REQUEST FOR MOBILE AIR CONDITIONER RETROFITTING PROGRAM (RENEWAL)

SUPPORTING STATEMENT

1. Identification of Information Collection

- a) Title: “Mobile Air Conditioner Retrofitting Program (Renewal)”

OMB Control Number: 2060-0350

EPA ICR Number: 1774.07

- b) Short Characterization/Abstract

The Significant New Alternatives Policy (SNAP) Program, under Section 612 of the Clean Air Act (CAA), enables the Agency to review available substitutes for ozone depleting substances (ODS) and determine their acceptability. The Stratospheric Protection Division (SPD) is responsible for enacting regulations to phase out chemicals that damage the stratospheric ozone layer and; therefore, pose a threat to human health and the environment. Depletion of stratospheric ozone can result in sharp increases in melanoma and non-melanoma cancers due to increased exposure to ultraviolet-A (UV-A) and ultraviolet-B (UV-B) radiation, and a higher incidence of cataracts (a leading cause of blindness). Under the SNAP program, companies submit applications of substitutes for ODS. After all necessary information is received, SPD has 90 days to review the data submitted, and determine if the substitute is acceptable, unacceptable, or if its use must be restricted. For every submission, SPD reviews factors such as impact on human health and the environment, ozone depleting potential, atmospheric lifetime, global warming potential, and flammability. Because many substitutes are produced for multiple uses, SPD must determine what uses are appropriate based on the factors mentioned. Once SPD makes a decision of acceptability, a Notice is published in the Federal Register listing acceptable substitutes under SNAP. If the substitute is found unacceptable or use restrictions are required, a notice-and-comment rulemaking is necessary. A comprehensive list of substitutes, their uses, and any relevant restrictions is maintained for distribution to interested parties.

SPD requires technicians retrofitting motor vehicle air conditioners (MVACs) containing ODS, such as CFC-12, to use an approved SNAP substitute and to provide basic information on a label to be affixed to a visible section of the MVAC. The label must include the name of the substitute refrigerant, when and by whom the retrofit was performed, environmental and safety information about the substitute refrigerant, and other information. This information is needed so that subsequent technicians working on the MVAC system will be able to service the system properly, decreasing the likelihood of significant refrigerant emissions, cross-contamination and potential failure of air conditioning systems and refrigerant recovery/recycling equipment. EPA requires that when retrofitting CFC-12 MVAC systems with an approved SNAP refrigerant, the technician must first extract the CFC-12, and then install new fittings unique to the new refrigerant.

EPA estimates that 13 technicians will be responsible for providing this information over the next three years, at a total cost (labor plus materials) of about \$46.38.

2. Need for and Use of the Collection

a) Authority for the Collection

The SNAP program reviews potential alternatives to ozone-depleting refrigerants used in various sectors, including MVACs. When chlorofluorocarbons (CFCs), and specifically CFC-12, were phased out, SPD faced the challenge of identifying acceptable alternative refrigerants that allowed consumers to retrofit CFC-12 MVAC systems with alternatives. EPA notes that in the U.S., prior to the 1993 model year (MY), all MVACs used CFC-12 and that after 1995, original equipment manufacturers (OEMs) were producing MVACs with HFC-134a. EPA estimates that there are currently, in 2018, about 8,200 MVACs originally designed to use CFC-12 operating in the U.S. Of the MVACs originally designed to use CFC-12 that are expected to be operational during the three-year term of this Information Collection Request (ICR), EPA estimates 13 (about 0.16%) or fewer will be retrofitted to use alternative refrigerants between July 31, 2018, and July 30, 2021, (the anticipated term of this ICR). The remaining MVAC systems will either: (1) continue to operate without service, (2) continue to operate with minor service including repairs and refilling with available supplies of CFC-12, (3) will be recycled or disposed of along with the entire motor vehicle, (4) will cease to function and will not be retrofitted, or (5) have already been retrofitted to an acceptable alternative refrigerant and will not be retrofitted again.

The purpose of this ICR is to estimate the burden associated with the 40 CFR part 82 subpart G requirements that service technicians label MVAC systems with information about new refrigerants when they retrofit a system. It is necessary to assess the time it will take for the service technician to fill out and place the label on the retrofitted air conditioner. This label will acknowledge that the retrofitting has been completed, and that the MVAC no longer uses CFC-12. In addition, the label provides essential information to technicians about the specific refrigerant used in the air conditioning system.

Section 612 of the CAA requires EPA to promulgate rules making it unlawful to replace any ODS with any substitute that the Administrator determines may present adverse effects to human health or the environment where the Administrator has identified an alternative that (1) reduces the overall risk to human health and the environment, and (2) is currently or potentially available. EPA is concerned that the existence of several substitutes in this end-use may increase the likelihood of significant refrigerant cross-contamination and potential failure of air conditioning systems and recovery/recycling equipment. In addition, continuing the smooth transition to substitutes strongly depends on the continued purity of the recovered, recycled and/or reclaimed CFC-12 supply.

b) Practical Utility/Users of the Data

The purpose of the label is to alert service technicians and motor vehicle owners that the MVAC has been retrofitted to use an acceptable non-CFC refrigerant. The label will provide essential information to technicians about the specific refrigerant used in the air conditioning

system. Technicians need this information to avoid service practices that might result in refrigerant cross-contamination and system failure.

3. Non-Duplication, Consultations, and Other Collection Criteria

a) Non-Duplication

The required label is put on CFC-12 air conditioners that are being retrofitted with an acceptable substitute. The label will be the only required mechanism to indicate the use of a substitute, and therefore will not be duplicative.

b) Public Notice Required Prior to ICR Submission to OMB

A Federal Register notice soliciting public comment was published on 4/27/2018 (83 FR 18557). No comments were received. EPA will publish a second Federal Register notice when this ICR is submitted to OMB for review.

c) Consultations

EPA consulted with the following individuals in preparing this ICR renewal regarding the number of motor vehicles with CFC-12 air conditioners on the road today in the U.S. and the percentage of those CFC-12 air conditioners likely to be retrofitted:

- Angelo Patti, Chairman of the Interior Climate Control Committee of Society of Automotive Engineers (SAE).
- Ward Atkinson, Suntest Engineering.
- Steve Schaeber, Mobile Air Conditioning Society Worldwide.

Ward Atkinson conferred with the other individuals and specifically stated that “vehicles having a CFC-12 refrigerant system had a life of 6 to 7 years. Based upon the last CFC-12 vehicle being produced in 1994, over 2 decades ago, due to the cost of repairing the A/C system and the value of the vehicle, there is questionable need for any CFC-12 refrigerant. The only potential need for CFC-12 in the MVAC fleet is for antique collectors of these vehicles that owners do not want to retrofit to another refrigerant.”

d) Effects Of Less Frequent Collection

This ICR asks for information to be collected just once per MVAC retrofit.

e) General Guidelines

This ICR follows all of OMB’s general guidelines for information collections.

f) Confidentiality

This ICR does not ask for any information that would be considered confidential.

g) Sensitive Questions

This ICR does not ask any questions concerning sexuality, religious beliefs, or other matters usually considered private.

4. The Respondents and the Information Requested

a) Respondents and SIC Codes

The following is a list of NAICS codes for organizations that may retrofit a MVAC and therefore may be affected by information collection requirements covered under this ICR.

- 441110: New Car Dealers
- 441120: Used Car Dealers
- 447110: Gasoline Stations with Convenience Stores
- 447190: Other Gasoline Stations
- 811111: General Automotive Repair
- 811121: Automotive Body, Paint, and Interior Repair and Maintenance
- 811198: All Other Automotive Repair and Maintenance

b) Information Requested

The Agency will not standardize the label, but rather allow the industry to devise a format that accommodates information about the refrigerants on the market. Unique fittings are necessary for different refrigerants in order to avoid cross contamination, as is the use of different colored labels for each refrigerant. EPA works with refrigerant developers to eliminate the risk of duplication. The person conducting the retrofit must apply a label that contains the following information to the MVAC in the engine compartment:

- The name and address of the technician and the company performing the retrofit,
- The date of the retrofit,
- The trade name, charge amount, and, when applicable, the numerical designation of the refrigerant as determined under the latest version of Standard 34 of the American Society of Heating, Refrigerating, and Air-conditioning Engineers (ASHRAE), Inc.,
- The type, manufacturer, and amount of lubricant used,
- If the refrigerant is or contains an ODS, the phrase "ozone depleter",
- If the refrigerant displays flammability limits as measured according to latest version of Standard E681 of the American Society for Testing and Materials (ASTM) International, the statement "This refrigerant is FLAMMABLE. Take appropriate precautions."

5. The Information Collected: Agency Activities, Collection Methodology, and Information

Management

The Agency has not developed a format for the label and does not collect and compile the information provided on the label.

6. Estimating the Burden and Cost of the Collection

a) Estimating Respondent Burden

EPA has not developed a standard label, but rather the manufacturers have the opportunity to produce unique labels to accompany their refrigerant. Much of the information required on the labels can be printed with the labels, thereby lessening the burden on the individual service shops, many of which are small businesses. These labels may also contain information about the specific fittings the service technician should use, with the subject refrigerant, to minimize the potential for cross-contamination due to several alternative refrigerant products on the market. EPA works closely with industry in carrying out these labeling requirements. Proper labeling results in considerable savings to industry and the public, since it greatly reduces the chance of refrigerant contamination. There are now 20 alternative refrigerants on the market listed under the SNAP program as acceptable replacements for CFC-12 for MVAC. However, only 15 of these alternative refrigerants are acceptable for retrofitting MVACs. Considerable costs would accrue if refrigerants were contaminated (mixed), including the costs to repair systems which failed as a result and the costs to recover, separate, reclaim and/or dispose of contaminated refrigerant.

To estimate the total number of retrofits expected to occur by July 30, 2021 (the anticipated expiration date for this ICR), the Agency analyzed publicly available data for vehicle sales in the U.S. from the Bureau of Economic Analysis (BEA), which provides vehicle (cars and trucks) sales from 1970 through 2000, citing Ward's Automotive Reports as the source (BEA 2018). EPA assumed that the penetration of air conditioning in these vehicles rose linearly from 70% in 1970 to 98% in 1998 and remained at 98% thereafter. EPA assumed that 100% of the MVACs were designed for CFC-12 for years 1970 through 1991, 67% for 1992, 33% for 1993, and 0% thereafter. EPA assumed the lifetime of service of an air conditioner follows a Poisson distribution with an average lifetime of 12 years. Using this method, EPA estimates that in 2017 there were approximately 18,000 MVACs originally designed to use CFC-12 operating in the U.S. and estimates that in 2018, 2019 and 2020 the number of MVACs originally designed to use CFC-12 will decrease to 8,200, 3,500 and 1,500, respectively. Of these, EPA estimates that 0.1% will be retrofitted annually to use alternative refrigerants. Therefore, EPA estimates that in 2018, 2019 and 2020 the number of MVACs to be retrofitted are 8, 4 and 1, respectively; resulting in a total of 13 MVAC retrofits. The remaining MVACs will either: (1) continue to operate without service, (2) continue to operate with minor service including refilling with available supplies of CFC-12, (3) be disposed or recycled along with the entire motor vehicle, (4) cease to function and will not be retrofitted due to economic reasons, or (5) have already been retrofitted to an alternative refrigerant and will not be retrofitted again.

EPA estimates the time to complete and apply the required label at five minutes per MVAC.

b) Estimating Respondent Costs

EPA estimates the cost per label to be \$0.10.

Respondent labor costs (hourly rate plus overhead) are estimated using data from the Bureau of Labor Statistics (BLS 2017a) for the “Motor Vehicles and Parts Dealers” industry. Median hourly wages are multiplied by a factor of 2.1 to reflect the estimated additional costs for overhead. The application of the label is expected to be performed by a technician:

- Automotive Service Technicians and Mechanics (Technical): $\$19.51/\text{hr} \times 2.1 = \$40.97/\text{hr}$

EPA estimates the time to complete and apply the label at five minutes per MVAC. Thus, the loaded labor cost per response is approximately \$3.41.

c) Estimating Agency Burden And Cost

The data required on the label is not submitted to the EPA; therefore, the Agency burden and cost is zero.

d) Estimating the Respondent Universe and Total Burden and Costs

The U.S. Department of Labor statistics indicate there will be an average total of 639,000 automotive service technicians and mechanics (SOC Code Number 49-3023) in the U.S. during the years this ICR will be active (BLS 2017b). EPA estimates that no more technicians than the total number of MVACs retrofitted over the three years of this ICR will be responsible for retrofitting. If each of the 13 MVACs is retrofitted by a different technician, then approximately 0.002% of technicians will be responsible for retrofitting over the three-year term of this ICR.

EPA estimates the time to complete and apply the label at five minutes per MVAC, making the total burden 1.1 hours (0.37 hours per year). At an estimated average labor rate of \$40.97 per hour, the overall cost associated with the burden hours is \$45.06 (\$15.02 per year). The cost for designing, typesetting, printing and distributing 13 labels is estimated at \$0.10 per label for a total of about \$1.30 (\$0.44 per year). Adding the labor and capital costs together yields a total cost burden of \$46.38 (\$15.46 per year).

e) Bottom Line Burden Hours And Cost Tables

As indicated in 6(c), there is no burden or cost to the Agency; therefore, the bottom-line burden hours and costs are equivalent to the respondent burden hours and costs:

Burden hours:	0.37 hours per year
Burden costs	
Direct:	\$0.44 per year
Labor:	\$15.02 per year

f) Reasons for Change in Burden

Based on the decline of CFC-12 MVACs in service today, EPA estimates a continued reduction in the number of CFC-12 MVAC retrofits will occur during the next three years. After 1994, new cars in the U.S. were no longer sold with CFC-12 MVACs. Thus, the number of operating cars with CFC-12 MVACs has decreased since the last ICR renewal. With fewer cars with CFC-12 MVACs, there will be fewer retrofits with substitute refrigerants and subject to this ICR.

g) Burden Statement

The annual public reporting and record keeping burden for this collection of information is estimated to average five minutes per response. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9 and 48 CFR chapter 15.

To comment on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques, EPA has established a public docket for this ICR under Docket ID No. EPA-HQ-OAR-2018-0220, which is available for online viewing at www.regulations.gov, or in person viewing at the EPA Docket Center (EPA/DC), WJC West, Room 3334, 1301 Constitution Avenue, NW, Washington, D.C. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566-1744, and the telephone number for the Air and Radiation Docket is (202) 566-1742. An electronic version of the public docket is available at www.regulations.gov. This site can be used to submit or view public comments, access the index listing of the contents of the public docket, and to access those documents in the public docket that are available electronically. When in the system, select "search," then key in the Docket ID Number identified above. Also, you can send comments to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, D.C. 20503, Attention: Desk Officer for EPA. Please include the EPA Docket ID Number EPA-HQ-OAR-2018-0220 and OMB Control Number 2060-0350 in any correspondence.

References

Bureau of Labor Statistics (BLS). 2017a. May 2017 National Industry-Specific Occupational Employment and Wage Estimates: NAICS 441000 -- Motor Vehicle Parts and Dealers. Available at: https://www.bls.gov/oes/current/naics3_441000.htm

Bureau of Labor Statistics (BLS). 2017b. May 2017 National Industry-Specific Occupational Employment and Wage Estimates: SOC 49-3023 -- Automotive Service Technicians and Mechanics. Available at: <https://www.bls.gov/oes/current/oes493023.htm>

Bureau of Economic Analysis (BEA). 2018. Motor Vehicle Unit Retail Sales. Available online at: https://www.bea.gov/national/xls/gap_hist.xlsx