or postponed, please contact: Chris Sakach at (202) 272–2300.

Dated: July 10, 1992

**Jonathan G. Katz,**

*Secretary.*

[FR Doc. 92–16602 Filed 7–10–92; 10:55 am]

BILLING CODE 8010–01–M

# Corrections

Federal Register
Vol. 57, No. 135
Tuesday, July 14, 1992

This section of the FEDERAL REGISTER contains editorial corrections of previously published Presidential, Rule, Proposed Rule, and Notice documents. These corrections are prepared by the Office of the Federal Register. Agency prepared corrections are issued as signed documents and appear in the appropriate document categories elsewhere in the issue.

## DEPARTMENT OF AGRICULTURE

### Agricultural Marketing Service

### 7 CFR Part 905

[Docket No. FV-92-046IR]

### Oranges, Grapefruit, Tangerines, and Tangelos Grown in Florida; Temporary Relaxation of Grade Requirements for Red and White Seedless Grapefruit

*Correction*

In rule document 92-10601 beginning on page 19518 in the issue of Thursday, May 7, 1992, make the following correction:

**§ 905.306 [Corrected]**

1. On page 19520, in § 905.306(a), in the table, in the second column, the second entry, "8/17/92-10/25/92", should be set on the same line as "Improved No. 2 (External)" the first time it appears; the third entry, "On and after 10/26/92", should be set on the same line as "Improved No. 2 (External)" the second time it appears; and the fifth entry, "On and after 8/17/92", should be set on the same line as "Improved No. 2 (External)" the third time it appears.

BILLING CODE 1505-01-D

## DEPARTMENT OF AGRICULTURE

### Agricultural Marketing Service

### 7 CFR Part 916

[Docket No. FV-92-003IR]

### Nectarines and Peaches Grown in California; Revision of Size, Maturity, Maturity Variance Procedure, and Container Marking Requirements for California Nectarines (M.O. 916) and California Peaches (M.O. 917)

*Correction*

In rule document 92-11509 beginning on page 20735 in the issue of Friday, May 15, 1992, make the following correction:

**§ 916.356 [Corrected]**

1. On page 20739, in the first column, in § 916.356(a)(1)(i), the first paragraph reading "Except not less...for the variety." should be moved to page 20738, in the third column, in § 916.356(a)(1)(i), in the first entry of the table, in the second column after "L".

BILLING CODE 1505-01-D

## DEPARTMENT OF AGRICULTURE

### Agricultural Stabilization and Conservation Service

### 7 CFR Part 723

### Tobacco

*Correction*

In proposed rule document 92-15132 beginning on page 28801 in the issue of Monday, June 29, 1992, make the following corrections:

1. On page 28802, in the second column, under 3. Attachment, in the sixth line, "ASCA" should read "ASCS".

2. On the same page, in the 3rd column, in the 22nd line, "burly" should read "burley" and "1992" should read "1993.".

**§ 723.401 [Corrected]**

3. On page 28804, in the 3rd column, in § 723.401(b) in the 1st line, "Each" was misspelled and in the 22nd line, "[MA-79-2]." should read "[MQ-79-2].".

BILLING CODE 1505-01-D

## DEPARTMENT OF AGRICULTURE

### Food and Nutrition Service

### Child and Adult Care Food Program; National Average Payment Rates, Day Care Home Food Service Payment Rates and Administrative Reimbursement Rates for Sponsors of Day Care Homes for the Period July 1, 1992-June 30, 1993

*Correction*

In notice document 92-15063 beginning on page 28653 in the issue of Friday, June 26, 1992, make the following corrections:

1. On page 28653, in the third column, in the first table, in the first column, in the fourth line from the bottom, "5 day" should read "50 day".

2. On the same page, in the same column, in the second table, in the second column, in the fourth line, "1900" should read ".1900".

3. On page 28654, in the first column, in the "Authority", in the fourth line, after "section 4(b)" insert "(1)".

BILLING CODE 1505-01-D

## DEPARTMENT OF COMMERCE

### International Trade Administration

[A-427-801, et al.]

### Antifriction Bearings (Other Than Tapered Roller Bearings) and Parts Thereof From France; et al; Final Results of Antidumping Duty Administrative Reviews

*Correction*

In notice document 92-14639 beginning on page 28360 in the issue of Wednesday, June 24, 1992, make the following corrections:

On page 28361, in the tables, in the second, third, and fourth columns, everywhere leaders appear should read "0.00".

BILLING CODE 1505-01-D

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Office of Child Support Enforcement

### 45 CFR Part 303

RIN 0970-AA78

### Child Support Enforcement Program; Federal Parent Locator Service Fees

*Correction*

In rule document 92-14780 beginning on page 28103 in the issue of Wednesday, June 24, 1992, make the following corrections:

**PART 303 [CORRECTED]**

1. On page 28110, in the second column, in the **Authority**, in the second line, after "1396a(a)(25" insert ")".

**§ 303.3 [Corrected]**

2. On the same page, in the third column, in amendatory instruction 2., in

the second line, "receiving" should read "removing".

BILLING CODE 1505-01-D

## DEPARTMENT OF THE INTERIOR

### Bureau of Indian Affairs

### Plan for the Use of the Fort Peck Assiniboine and Sioux Indian Tribes Judgment Funds Awarded in Docket 31-88L Before the United States Claims Court

*Correction*

In notice document 92-15243 appearing on page 29162 in the issue of Tuesday, June 30, 1992, in the third column, in the first full paragraph, in the ninth line, after "allotted," insert "tribal and fee lands within large tracts to improve and".

BILLING CODE 1505-01-D

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Part II

# Department of Commerce

## International Trade Administration

## Consortia of Businesses in the Newly Independent States; Notice

**DEPARTMENT OF COMMERCE**

**International Trade Administration**

**[Docket No. 920498-2098]**

## Consortia of American Businesses in the Newly Independent States

**AGENCY:** International Trade Administration, Commerce.

**ACTION:** Notice of a New Business Consortia Grant Program to Assist U.S. Firms Establish a Commercial Presence in the Newly Independent States of the former Soviet republics.

**SUMMARY:** A program has been designed to assist U.S. firms in establishing a commercial presence in the former Soviet republics through the formation of Consortia of American Businesses in the Newly Independent States (CABNIS). CABNISs are private and public non-profit organizations which will be formed to promote U.S. goods and services in the Newly Independent States (NIS). The participants in these consortia will be for-profit U.S. firms interested in trade with the former Soviet republics. CABNISs will establish offices and staff in the NIS to provide a broad range of services for their for-profit member firms, including market research, sales promotion, communication of sales opportunities, identification of and introduction to potential buyers and trade contacts, staging trade and technical missions and seminars, provision or arrangement of necessary legal services, and other export trade facilitation services. Grant funds will be awarded as seed money to pay the start-up costs of establishing and operating U.S. consortia offices in the NIS. CABNISs can be organized along a single industry line or represent more than one business sector. There is no limitation on the number of for-profit firms that a consortium may represent.

**SUPPLEMENTARY INFORMATION:**

### Program Objectives

The consortia are intended to strengthen the U.S. business presence in the NIS. They will provide direct trade facilitation support for their member firms, stimulating increased U.S. exports to the NIS. The consortia will promote two-way trade and will be expected to support the privatization movement of host country economies through consortia assistance with defense plant conversion projects, finding markets for NIS products, promoting U.S. investment and U.S.-NIS joint ventures, and/or technical training.

### Funding Availability

Pursuant to section 531 and section 632 (b) of the Foreign Assistance Act of 1961, as amended, (the "Act") funding for the program will be provided by the Agency for International Development (A.I.D.). ITA will award financial assistance and administer the program pursuant to the authority contained in section 635(b) of the Act. The total amount of program grant funds available for CABNIS is $1 million for FY 1992 and an anticipated $3.5 million for FY 1993.

### Funding Instrument and Project Duration

The Federal grant contribution will not exceed 50 percent of proposed eligible project costs with a maximum grant amount of $50,000 per consortium. Applicants are expected to provide the remaining share, preferably in cash. Federal funding will be a one-time injection with a grant period not to exceed three years. Assistance will be available for the period of time required to complete the scope of work but not to exceed three years from the date of the grant offer.

### Request for Applications

Competitive Application kits (Application Kits) #110-0005-1 will be available from Commerce starting July 13, 1992.

To obtain a copy of the Application Kit #110-0005-1, please send a written request with two self-addressed mailing labels to Mr. George Muller, Director, Office of Export Trading Company Affairs, room 1800 HCHB, U.S. Department of Commerce, 14th and Constitution Avenue NW., Washington, DC 20230. Only written requests will be honored; telephone, fax, or walk-in requests will not be accepted. Only one copy of the Application Kit will be provded to each organization requesting it, but it may be reproduced by the requester. Applications (Standard Form 424 (Rev. 4-88)) are to be received at the address designated in the Application Kit no later than 3 p.m. e.d.t. August 28, 1992. Commerce intends to award a minimum of two grants prior to the end of FY 1992 and, subject to availability of funds, award an anticipated minimum of seven grants during FY 1993. Applications which are not selected for funding in FY 1992 will be carried over automatically and be evaluated for possible funding in FY 1993—again subject to availability of FY 1993 funds.

*Eligibility*

Eligible applicants for the CABNIS grant program will be private and public non-profit U.S. organizations including non-profit corporations, associations and public sector entities established to represent the commercial interests of U.S. firms. Within the industry or industries represented by the consortium, membership in a consortium must be available on a non-discriminatory basis. For example, membership in a trade association cannot be a requirement for membership in a consortium. Only applicants proposing to open an office in one or more of the Newly Independent States are eligible for this program. Each application will receive an independent, objective review by one or more review panels qualified to evaluate the applications submitted under the program. Applications will be evaluated on a competitive basis in accordance with the selection criteria set below.

*Selection Criteria*

Consideration for financial assistance will be given to those CABNIS proposals which:

1. Demonstrate how proposed member firms' U.S. exports and consortia business activities will support privatization and private enterprise (e.g., through assistance with defense plant conversion projects, technical training, marketing assistance and investment promotion). Marketability of the proposed products and/or services in the NIS will be taken into account in evaluating applications.

2. Are proposed by non-profit organizations with the capacity, qualifications and staff necessary to successfully undertake the intended activities.

In addition, priority consideration will be given to those applications which:

3. Demonstrate the capability and intent of enlisting small and mid-sized U.S. firms as members of the consortium.

4. Provide a reasonable assurance that the proposed project can be continued on a self-sustained basis after expiration of the Federal grant expenditure period.

5. Contain a commitment to encourage, support and assist in the development of indigenous counterpart organizations (e.g., trade associations) and a well reasoned plan as to how that will be accomplished.

6. Present a realistic work plan detailing the services it will provide to the consortium member firms.

7. Present a reasonable, itemized budget for the proposed activities.

Selection criteria factors 1 and 2 will be weighted equally and will take precedence over priority consideration

factors 3–7. Priority consideration factors 3–7 will be weighted equally.

The need for U.S. products and services and for assistance in the privatization process canvasses all of the former Soviet republics. Different geographic locations will be more suitable for different industries (e.g., oil production equipment versus medical equipment). In selecting grant recipients, ITA reserves the right to award grants in such a way to ensure a reasonably balanced distribution of consortia and the industry sectors that they represent among the NIS countries. Preference will be given to financial proposals which demonstrate the maximum allocation of Federal and non-Federal resources to program activities. ITA reserves the right to determine the level of funding for each grant awarded.

*Notifications*

All applicants are advised of the following:

1. No award of Federal funds shall be made to an applicant who has an outstanding delinquent Federal debt until either the delinquent account is paid in full, a negotiated repayment schedule is established and at least one payment is received, or other arrangements satisfactory to the Department of Commerce are made.

2. Primary applicants must submit a completed Form CD–511, "Certifications Regarding Debarment, Suspension and Other Responsibility Matters; Drug-Free Workplace Requirements and Lobbying." Prospective participants (as defined at 15 CFR part 26, section 105) are subject to 15 CFR part 26, "Governmentwide Debarment and Suspension (Nonprocurement)" and the related section of the certification form prescribed above applies. Grantees (as defined at 15 CFR part 26, section 605) are subject to 15 CFR part 26, subpart F, "Governmentwide Requirements for Drug-Free Workplace (Grants)" and the related section of the certification form prescribed above applies. Persons (as defined at 15 CFR part 28, section 105) are subject to the lobbying provisions of 31 U.S.C. 1352, "Limitations on use of appropriated funds to influence certain Federal contracting and financial transactions," and the lobbying section of the certification form prescribed above applies to applications/bids for grants, cooperative agreements, and contracts for more than $100,000 and loans and loan guarantees for more than $150,000, or the single family maximum mortgage limit for affected programs, whichever is greater. Any applicant that has paid or will pay for lobbying using any funds must submit an SF–LLL "Disclosure of Lobbying Activities," as required under 15 CFR part 28, appendix B.

3. Recipients shall require applicants/bidders for subgrants, contracts, subcontracts, or other lower tier covered transactions at any tier under the award to submit, if applicable, a completed Form CD–512, "Certifications Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions and Lobbying" and disclosure form, SF–LLL, "Disclosure of Lobbying Activities." Form CD–512 is intended for the use of recipients and should not be transmitted to the Department of Commerce. SF–LLL submitted by any tier recipient or subrecipient should be submitted to the Department of Commerce in accordance with the instructions contained in the award document.

4. A false statement on the application may be grounds for denial or termination of funds.

5. All non-profit and for-profit applicants are subject to a name check review process. Name checks are intended to reveal if any key individuals associated with the applicant have been convicted of or are presently facing criminal charges such as fraud, theft, perjury, or other matters which significantly reflect on the applicant's management honesty or financial integrity.

6. Unsatisfactory performance under prior Federal awards may result in an application not being considered for funding.

7. If applicants incur any costs prior to an award being made, they do so solely at their own risk of not being reimbursed by the Government. Notwithstanding any verbal assurance that they may have received, there is no obligation on the part of the Department of Commerce to cover pre-award costs.

8. If an application is selected for funding, the Department of Commerce has no obligation to provide any additional future funding in connection with that award. Renewal of an award to increase funding or extend the period of performance is at the total discretion of the Department of Commerce.

9. Awards under this program shall be subject to all Federal and Departmental regulations, policies and procedures applicable to financial assistance awards.

10. The Standard Form 424 (Rev. 4–88) mentioned in this Notice is subject to the requirements of the Paperwork Reduction Act and it has been approved by OMB under Control No. 0348–0006.

11. Executive Order 12372 "Intergovernmental Review of Federal Programs" does not apply to this program.

Dated: July 8, 1992.

**George Muller,**

*Director, Office of Export Trading Company Affairs.*

[FR Doc. 92–16337 Filed 7–13–92; 8:45 am]

BILLING CODE 3510-DR-M

federal register

Tuesday
July 14, 1992

# Part III

# Environmental Protection Agency

## 40 CFR Part 82

## Protection of Stratospheric Ozone; Rule

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 82**

**[FRL-4150-7]**

**RIN 2060-AD50**

## Protection of Stratospheric Ozone

**AGENCY:** Environmental Protection Agency.

**ACTION:** Final rule.

**SUMMARY:** This final rule establishes standards and requirements for servicing of motor vehicle air conditioners, and restricts the sale of small containers of ozone-depleting substances, under section 609 of the Clean Air Act, as amended (Act). Specifically, the regulations require persons who repair or service motor vehicle air-conditioning units for consideration to be certified in refrigerant recovery and recycling and to properly use approved equipment when performing service involving the refrigerant. Finally, effective November 15, 1992, the regulations prohibit the sale of containers of ozone depleting substances under 20 pounds except to certified technicians.

**DATES:** This final regulation is effective August 13, 1992.

Note: Under Section 307(b)(1) of the Clean Air Act, EPA hereby finds that these regulations are of national applicability. Accordingly, judicial review of this action is available only by the filing of a petition for review in the United States Circuit Court of Appeals for the District of Columbia Circuit within 60 days of publication. Under Section 307(b)(2) of the Act, the requirements that are the subject of today's notice may not be challenged later in judicial proceedings brought by EPA to enforce these requirements.

**ADDRESSES:** Comments and materials supporting this rulemaking are contained in Public Docket No. A-91-41 in room M-1500, Waterside Mall (Ground Floor), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460. Dockets may be inspected from 8:30 a.m. until 12 noon, and from 1:30 p.m. until 3 p.m., Monday through Friday. A reasonable fee may be charged for copying docket materials.

**FOR FURTHER INFORMATION CONTACT:** Lena Nirk, Stratospheric Ozone Protection Branch, Global Change Division, Office of Atmospheric and Indoor Air Programs, Office of Air and Radiation (6202-J), 401 M Street SW., Washington, DC 20460. (202) 233-9147. The Stratospheric Ozone Information Hotline at 1-800-296-1996 can also be contacted for further information.

**SUPPLEMENTARY INFORMATION:** The contents of today's preamble are listed in the following outline:



### I. Background

#### *A. Statutory Authority*

Section 609 of the Act requires the Administrator to promulgate regulations establishing standards and requirements regarding the servicing of motor vehicle air conditioners. This section also prohibits the sale of small containers of ozone depleting substances, except to certified technicians. Title VI of the Act is designed to protect the stratospheric ozone layer.

#### *B. Ozone Depletion*

The stratospheric ozone layer protects the earth from the penetration of ultraviolot (UV-B) radiation. A national and international consensus exists that chlorofluorocarbons (CFCs), halons, carbon tetrachloride and methyl chloroform must be restricted because of the risk of depletion of the stratospheric ozone layer through the release of chlorine and bromine. To the extent depletion occurs, penetration of UV-B radiation increases, resulting in potential health and environmental harm including increased incidence of certain skin cancers and cataracts, suppression of the immune system, damage to plants including crops and aquatic organisms, increased formation of ground-level ozone and increased weathering of outdoor plastics. (See 53 FR 30566, August 12, 1988 for more information on the effects of ozone depletion.)

The original theory linking CFCs to ozone depletion was first proposed in 1974. Since then, the scientific community has made remarkable advances in understanding atmospheric processes affecting stratospheric ozone science. Model predictions in the late 1980s suggested that continued use of CFCs would lead to substantial ozone depletion in the middle of the next century. Despite the sophistication of these models, scientists were unable to predict the extent of the decrease in stratospheric ozone over Antarctica that was first reported in 1985. This seasonal loss of ozone over the south pole became known as the "Antarctic ozone hole". In 1988, the results of an international assessment of ozone trends were published in the Executive Summary of the Ozone Trends Panel Report. In addition to the ozone hole, this report stated that analysis of total-column ozone data showed measurable downward trends from 1969 to 1988 of 3 to 5 percent in the northern hemisphere in the winter. In early 1991, new scientific evidence indicated an annual loss of stratospheric ozone over the northern mid-latitudes during the past decade of 3 to 5 percent. This amount is 2 times greater than past studies suggested and illustrated the concern that ozone depletion appears to be occurring faster than theoretical models had predicted. The latest scientific assessment showed for the first time stratospheric ozone depletion in summertime over the continental United States.

#### *C. Montreal Protocol*

In September 1987, the United States and 22 other countries signed the Montreal Protocol on Substances that Deplete the Ozone Layer. As originally drafted, the Protocol called for production and consumption of CFCs (CFC-11, 12, 113, 114, 115) and Halon-1211, -1301 and -2402 to be frozen at 1986 levels beginning July 1, 1989 and January 1, 1992 respectively, and for the CFCs to be reduced to 50 percent of 1986 levels by 1998. To date, 75 nations representing well over 90% of the world's production capacity have signed the Montreal Protocol. EPA promulgated regulations implementing the requirements of the 1987 Protocol through a system of tradable allowances (53 FR 30566, August 12, 1988). EPA apportioned the allowances to producers and importers of ozone depleting substances (controlled substances) based on their 1986 level of production and importation. It then

reduced the allowances for the controlled substances according to the schedule specified in the Protocol.

*D. Excise Tax*

As part of the Omnibus Budget Reconciliation Act of 1989, the U.S. Congress levied an excise tax on the sale of CFCs and other chemicals that deplete the ozone layer, with specific exemptions for exports and recycling. The tax has operated as a complement to EPA's regulations limiting production and consumption by increasing the costs of using virgin controlled substances. As a result of the tax, there is an added incentive for industry to shift out of controlled substances and to increase recycling activities. The tax has also stimulated the market for alternative chemicals and processes. The original excise tax was amended in 1991 to include methyl chloroform, carbon tetrachloride and other CFCs regulated by the amended Montreal Protocol and title VI of the Clean Air Act.

*E. London Amendments*

Since the signing of the Protocol in 1987, additional scientific evidence became available indicating that depletion of the stratospheric ozone layer was occurring more quickly than had been anticipated. In response to this evidence (i.e. the 1988 Ozone Trends Panel Report), the Parties to the Protocol at their meeting in London in June 1990 amended the Protocol schedule for CFCs and halons to require a complete phaseout by January 1, 2000. Methyl chloroform and carbon tetrachloride were added to the list of ozone depleting substances, with carbon tetrachloride phased out by January 1, 2000 and methyl chloroform phased out by January 1, 2005.

The parties also passed a non-binding resolution regarding the use of hydrochlorofluorocarbon (HCFCs). HCFCs have been identified as interim substitutes for CFCs because they add much less chlorine to the stratosphere than fully halogenated CFCs. The Parties were concerned, however, that rapid growth in the amount of use of these chemicals over time would still pose a threat to the ozone layer. As a result, the resolution calls for the phaseout of HCFCs by 2020 if feasible and no later than 2040 in any case.

*F. Advance Notice of Proposed Rulemaking*

On May 1, 1990, EPA published an advance notice of proposed rulemaking (ANPRM, 55 FR 18256) addressing issues related to the development of a national recycling program. This notice emphasized that in addition to delaying or reducing the release of ozone depleting substances, recycling is important for avoiding the cost of early retirement or retrofit of equipment requiring CFCs for service past the year in which production is eliminated. Although the Agency continues to investigate destruction of these chemicals, at this time it believes that continuing to use these substances through recycling in existing equipment can serve as a useful bridge to alternative products while minimizing disruption in the utilization of the current capital stock of equipment, preventing costly early retirement of equipment.

The ANPRM asked for comment on the feasibility of recycling in various CFC end uses and also asked for comment on methods, such as a deposit/refund system, that could be employed to further enhance recycling. The Agency received 110 public comments in response to the ANPRM. In general, most commenters recognized the need for recycling to help efforts to protect the ozone layer and to provide a source of supply to service existing capital equipment past the end of production.

The ANPRM also described the cooperative project undertaken between EPA, the Mobile Air Conditioning Society, the Motor Vehicle Manufacturers Association (MVMA), the Automotive Importers of America, the Society of Automotive Engineers (SAE), the American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc. (ASHRAE), manufacturers of recover/recycling equipment, automotive industry representatives, and environmental groups to develop recycling of motor vehicle air conditioning refrigerant. This group participated in projects that led to the development of a purity standard for recycled refrigerant for motor vehicles (SAE J1991), a service procedure standard (SAE J1989), and a standard for the recycling equipment (SAE J1990). For a more detailed discussion of the voluntary program, see the NPRM published September 4, 1991 (56 FR 43842).

*G. Clean Air Act Amendments of 1990*

The Clean Air Act Amendments of 1990, signed November 15, 1990, include requirements for controlling ozone-depleting substances which are generally consistent with, but in some cases more stringent than those contained in the revised Montreal Protocol. For the substances covered by the revised Protocol's control measures ("class I" substances including fully halogenated CFCs, Halons, methyl chloroform, and carbon tetrachloride), title VI of the Act calls for a phase-out by January 1, 2000 with deeper interim reductions and, in the case of methyl chloroform, an earlier phaseout date (2002 instead of 2005). For the HCFCs ("class II" substances), title VI requires use restrictions, a production freeze in 2015 and a phaseout in 2030. EPA issued a temporary final rule on March 6, 1991 implementing the production and consumption limits contained in the Act for calendar year 1991. (See 56 FR 9518.) The Agency published proposed regulations for 1992 and beyond on September 30, 1991 (See 56 FR 49548).

In addition to the phaseout of ozone depleting substances, title VI includes provisions to reduce emissions of all ozone-depleting substances. Section 608 contains requirements for EPA to promulgate a regulation to achieve a "lowest achievable level" of emissions of controlled substances during use and disposal of appliances and industrial process refrigeration and bans intentional venting at service and disposal. Section 609, which today's notice implements, requires standards for certification of technicians and for equipment used in the servicing of motor vehicle air conditioners and restricts the sale of small containers of CFCs. A nonessential products ban and mandatory labeling are required in sections 610 and 611, respectively, and a program to review the safety of alternatives to controlled substances is required under section 612.

*H. September 4, 1991 Proposed Rule and April 22, 1992 Supplemental Proposal*

In a notice of proposed rulemaking published on September 4, 1991 (56 FR 43842), EPA discussed many of the important issues surrounding implementation of Section 609 of the Act. The proposal discussed various requirements, all designed to limit the release of refrigerant during the service of motor vehicle air conditioners. The following is a short description of the major components of the September 4 Notice.

EPA proposed definitions for the terms "motor vehicle," "motor vehicle air conditioner," "service for consideration," "service involving refrigerant," "approved refrigerant recycling equipment," and "properly using." These proposed definitions would apply only to regulations under section 609. In describing these definitions, EPA discussed the legal and policy aspects of the various options considered.

With respect to approved refrigerant recycling equipment, EPA proposed approval of two kinds of equipment—

equipment that recovered and recycled the refrigerant, and equipment that only recovered the refrigerant. Standards for approval of recovery/recycle equipment were proposed in appendix A of the proposal. These standards consisted of the two SAE standards specifically mentioned in the Act (SAE J1990, SAE J1989). They contain appropriate service procedures for recycling refrigerant in motor vehicles, and equipment specifications for recover/recycle machines. Appendix A also contained the SAE standard of purity for refrigerant recycled on-site at a service establishment (SAE J1991).

Appendix B was reserved for the technical standard for recover only equipment. Proposed appendix B was published in a supplemental notice dated April 22, 1992 (57 FR 14763). This proposed standard closely resembles another SAE standard (SAE J2209) written specifically for equipment that removes refrigerant from motor vehicle air conditioners but does not purify it. That standard will be finalized, upon completion of the public comment period, in a separate rulemaking.

Under the proposal, an EPA approved "independent standards testing organization" would certify that equipment met the applicable standards. Upon such certification, the equipment would meet EPA's definition of approved refrigerant recycling equipment. The September proposal outlined the procedures for EPA approval of independent standards testing organizations. These approved organizations would test equipment and certify that equipment met the applicable standards. EPA proposed standards for the proper use of approved equipment, as well as a procedure for EPA determination of whether equipment was "substantially identical" to approved equipment.[1]

In addition to using approved equipment, service or repair technicians would have to be trained and certified by an approved technician training and certification program. The proposal described the standards for approval of such programs, as well as application procedures.

The January 1, 1992 effective date would be delayed for one year for small volume shops—entities that serviced less than 100 motor vehicle air conditioners during 1990. This one year delay would apply only for those small entities that filed a small entity certification with EPA on or before January 1, 1992. In addition, as of November 15, 1992, the sale or distribution of class I or class II substances suitable for use in motor vehicle air conditioners was restricted in containers of less than 20 pounds of such substances to persons who were properly trained and certified under the regulation, or who purchased them for resale only.

The Agency proposed certification and recordkeeping requirements needed for compliance monitoring. In addition to the statutorily required certification to the Administrator of small entity status and equipment ownership, the Agency proposed that service establishments retain records of service events and amounts of refrigerant purchased. The amount of refrigerant sent to reclamation facilities would have to be recorded and sellers of refrigerant would be required to record technician certification numbers and amounts sold.

In developing the proposed rule, the Agency received guidance from the Stratospheric Ozone Protection Advisory Council (STOPAC) subcommittee for Servicing of Motor Vehicle Air Conditioning. This subcommittee was made up of members of the original STOPAC that advised the Agency on the development of the production phase-out requirements and the international negotiations, as well as additional representatives from the automobile industry, environmental groups, and State and local government. Several members of the voluntary program described in section I.F. also participated. The Agency wishes to acknowledge their valuable assistance in the development of the proposal.

## II. Summary of Public Participation

A public hearing on the proposed rule was held on September 13, 1991. Six groups presented oral comments on the proposed requirements and submitted written testimony to the Agency. A transcript of the hearing is contained in the public docket.

The agency received a total of 68 letters on the proposed rule. The technician certification standards were frequently addressed. Commenters requested clarification of the term "independent testing authority". Many commenters addressed the effectiveness and validity of a minimum standard that allowed unproctored testing. Several commenters requested the option of developing their own training and certification programs. Commenters also frequently addressed the definition and use of approved equipment. In general, there was significant support for the Agency's option of allowing both recover only and recover/recycle equipment, although several comments expressed serious concern over misuse of equipment and refrigerant contamination.

Several commenters requested clarification of the recordkeeping requirements for their specific circumstances. Commenters also addressed the relationship between state and federal regulatory requirements. Many expressed concern about the continued sale of small containers of class I and class II substances and possible adverse consequences if alternative refrigerants are used in equipment. Other issues addressed in the comments included the substantially identical equipment determination and equipment testing and labeling.

## III. Responses to Major Public Comments

A document summarizing the public comments to this rulemaking is available in the public docket for this final rule. The major issues raised by the commenters and the Agency's responses to them are described below. Other comments are addressed in the comment response document also found in the public docket.

### *A. Definitions*

#### 1. Motor Vehicle Air Conditioners

Several commenters addressed EPA's proposed definitions of "motor vehicle" and "motor vehicle air conditioner." As proposed, motor vehicle would be defined as "any vehicle which is self-propelled and designed for transporting persons or property, including but not limited to passenger cars, light duty vehicles, heavy duty vehicles, farm vehicles and construction equipment." The definition of motor vehicle air conditioner was proposed as a "mechanical compression refrigeration equipment used to cool the driver's or passenger's compartment of any motor vehicle. This definition is not intended to encompass the hermetically sealed refrigeration systems used on vehicles for refrigerated cargo." While the hermetically sealed refrigeration system that cools the storage container of a refrigerated transport truck would be excluded, the unit that cools the driver or passenger compartment of such a truck would be included.

As proposed a broad array of vehicles would be defined as a motor vehicle for purposes of regulation under section 609 of the Act. Coverage would extend beyond the definition of motor vehicle used for purposes of title II, part A of the Act, and should include a wide variety of off-road equipment, trains, and

[1] Substantially identical equipment purchased on or before the date of EPA's proposal would be deemed to be approved equipment.

mining equipment. In the notice of proposed rulemaking, EPA noted that the passenger air conditioner units for these vehicles use CFC–12 as the refrigerant, with the possibility that future refrigerants such as HFC–134a would be used. EPA was concerned about the breadth of coverage in the proposed definition of motor vehicle, and therefore specifically requested comment on inclusion of off-road vehicles in the definition of motor vehicle.

Several commenters discussed this issue, and in general counseled caution in extending the section 609 regulations beyond the scope of vehicles defined as a motor vehicle for the purposes of title II of the Act. They argued that the proposed definition of motor vehicle was too broad, and should not include farm and construction equipment. They viewed the definition of motor vehicle in title II as controlling. In the alternative, they suggested EPA conduct a study of the contribution of CFC's from air conditioner servicing for such off-road vehicles, and the potential regulatory burdens of extending section 609 to them, before including such vehicles in the section 609 program. The commenters argued that the flexibility was needed, given the unique circumstances of off-road equipment dealers, the fact that repair and maintenance of off-road vehicles is often performed in the field, and the seasonal and sporadic demand for air conditioner repairs for these vehicles. At the same time, other commenters argued that EPA should include off-road equipment, aircraft, and marine vessels in its definition of motor vehicle, to provide broad coverage under section 609 regulations.

EPA has decided to limit the definition of motor vehicle for purposes of section 609 to include only those vehicles that meet the definition of motor vehicle under section 216(2) of the Act. While EPA does not believe that section 609 precludes a broader definition,[2] the Agency believes the best exercise of its discretion is to exclude off-road vehicles from the definition of motor vehicle at this time, given the significantly different circumstances presented by off-road vehicles.

EPA expects that implementation of the section 609 regulations adopted today will occur in a smooth and straightforward manner for on-road vehicles; the industry has been involved in a voluntary recycling effort for several years, and there is a general uniformity in the type of vehicle and air conditioner covered by the definition, as well as uniformity in service and repair circumstances. Off-road vehicles, however, present a different picture. These vehicles differ widely in nature, reflecting the broad array of industries in which they are used. Some are mobile but many are not, potentially leading to a wide variety of service and repair circumstances. Certain of these industries have been involved with the voluntary recycling program, but as a whole they have not been closely involved as the traditional motor vehicle sector.

As noted by the commenters, these differences pose a wide variety of potential problems, ranging from access to reclamation centers to difficulties in air conditioner servicing. EPA therefore believes it is appropriate at this time to confine the definition of motor vehicle for purposes of section 609 to on-road vehicles.[3] These vehicles encompass the overwhelming majority of vehicle air conditioners, and constitute the core group Congress meant to cover under section 609.

At the same time, EPA is aware that voluntary recycling is expanding in certain segments of the off-road sector, and supports such efforts. EPA will consider these off-road vehicles under the section 608 program, which extends to all uses of class I and II substances as refrigerants. For all of these reasons, EPA therefore believes that the definition of motor vehicle being promulgated as part of these regulations should have no adverse environmental effects.

The Agency would also like to clarify that the HCFC–22 air conditioner systems typically found in buses are not included in the definition of motor vehicle air conditioner at this time, because these systems are more akin to stationary units in their functioning and the type of refrigerant they use. In addition, the SAE standards referenced in the Act and the certified recycling equipment developed under those standards is not appropriate for use with HCFC–22 systems. EPA expects that such HCFC–22 air conditioning systems will be subject to the venting prohibition in section 608 of the Act and that the servicing of these systems will be covered by the regulations implementing section 608.

Finally, the Agency wishes to respond to comments from the Motor Vehicle Manufacturing Association (MVMA), Navistar, and the John Deere Company that questioned whether the charging and/or repair of motor vehicle air conditioners, prior to completion of final assembly of the vehicle, should be covered by this regulation. In additional comments received after the close of the comment period, MVMA highlighted that the type of equipment currently used in the manufacturing facility to recover refrigerant during repairs is "specialized production equipment singularly intended for high volume operation in delivering clean refrigerant to every unit, every time. Such large volume equipment is designed to be a permanent, stationary fixture in the plant * * *". The comments state further that "[i]ndustry equipment used during the manufacturing process clearly meets the substantive requirements of the proposed regulation even though, because of its in-line nature, Underwriter's Laboratory (UL) or other certification does not exist and is not appropriate." This type of equipment was contrasted to the small, low volume, moveable equipment found in the service sector. EPA believes the repair of newly manufactured units is not likely to be a common occurrence and when it does occur, the manufacturing facilities clearly use equipment to recover and recycle the refrigerant so that it may be reintroduced once the motor vehicle air conditioner is repaired. The equipment is significantly different from the kind of equipment covered by EPA's definition of approved equipment, yet serves the purpose of such equipment equally well. In addition, the technicians performing this operation are typically manufacturing employees, not service technicians. For all these reasons, the Agency believes it is not necessary at this time to extend the requirements of this servicing regulation into the assembly operation.

MVMA did note that the manufacturer's garages perform air conditioner service and repair activities on company-owned fleet vehicles that is akin to the service and repair performed by dealerships. EPA agrees with MVMA that such repair and service activities should be and are fully covered by today's regulation. EPA wants to be clear that this exclusion is limited to final assembly activities conducted by the vehicle's original manufacturer, and

[2] EPA is not persuaded by commenters' arguments that Section 609 is limited by law to motor vehicles as defined in section 216(2). First, the definition of motor vehicle found in Section 216(2) of the Act is explicitly limited in application to part A of title II. In addition, neither the statute nor the legislative history for Section 609 indicates that motor vehicle as used in that section is limited by law to those vehicles included in the title II part A definition.

[3] To avoid confusion, vehicles that otherwise meet the definition of motor vehicle are covered by these regulations notwithstanding their use, for example, on farms or construction sites.

does not include service or repair activities conducted, for example, by a dealer.

2. Refrigerant

This term is defined to mean any class I or class II substance used in a motor vehicle air conditioner and, effective November 15, 1995 (five years after enactment of the Act), any substitute substance, such as HFC-134a. For clarity, this additional provision of section 609(b)(1) was added to the definition.

The Agency emphasizes that any blend of substance that includes a class I or class II substances, such as R-176 (a blend of CFC-12, HCFC-142b and HCFC-22), is included under today's requirements and must be recovered or recycled at service. EPA also is evaluating the impact of alternative refrigerants, including R-176, on the effectiveness of its recycling efforts.

3. Service Involving Refrigerant

The Agency stated in the proposal that the intent of the Act is to require recycling of refrigerant in motor vehicle air conditioners whenever service is being performed that may release refrigerant to the atmosphere. This includes service of motor vehicle air conditioners and service of other motor vehicle components that may require some dismantling of the motor vehicle air conditioning system. Servicing of motor vehicle air conditioners, therefore, includes repairs, leak testing, and "topping off" of air conditioning systems low on refrigerant, as well as any other repair which requires some dismantling of the air conditioner. Each of these operations involves a reasonable risk of releasing refrigerant to the atmosphere.

Four commenters stated that if recovery of refrigerant at disposal is not required under section 609, it should be covered by the safe disposal program under section 608. As stated in the proposal, EPA would like to encourage recovery of refrigerant at disposal. The specific requirements for recovery at disposal, it any, may be addressed in the regulations implementing the safe disposal program under section 608 of the Act. The Agency will consider the commenters' suggestions on this issue when addressing the safe disposal requirements under section 608.

4. Service For Consideration

In the proposed rule, the Agency interpreted "service for consideration" to include persons who are paid to perform service on motor vehicle air conditioners, thus subjecting to regulation all service except that done for free. Several commenters questioned whether fleets are included. The Agency would like to clarify that fleets of vehicles, whether private, or federal, state or local government owned, are covered because the technicians doing the service are being paid. Other examples of establishments doing service covered by the regulations include, not are not limited to, independent repair shops, service stations, fleet shops, body shops, chain or franchised repair shops, new or used car and truck dealers, rental establishments, radiator repair shops, mobile repair operations, vocational technical schools (because instructors are paid), farm equipment dealerships, and fleets of vehicles at airports.

Two commenters suggested adding the recover, recycle, reclaim definitions to the rule language with the definition of service. The Agency did not propose this and will not be incorporating the definitions formally into rule language now. The meaning of these words may evolve over time with continued technological innovation. The Agency does not wish to impede this progress through inclusion of a definition of these terms in the regulations.

Comments from MVMA, Navistar, and the John Deere Company questioned whether the charging and/or repair prior to the completion of final assembly is covered under the "service for consideration" definition. As previously discussed in section III.A.1., a motor vehicle air conditioner is not subject to these regulations prior to the completion of final assembly of the vehicle by the original equipment manufacturer. While repair or service work on air conditioners in unfinished vehicles may well fit the definition of "service for consideration," the equipment and technician certification requirements of these rules do not apply as the motor vehicle air conditioner is not subject to these rules prior to completion of the final assembly process by the vehicle's manufacturer.

5. Properly Using

The Act requires that the Administrator establish standards for using equipment that shall be at least as stringent as the applicable standards of the Society of Automotive Engineers (SAE) in effect as of the date of enactment (November 15, 1990). The standard referred to, J1989, provides recommended service procedures for the containment of CFC-12. In the September 4, 1991 notice, the Agency proposed that the standard for "properly using" include J1989 and an additional requirement that if recover only equipment is used, the refrigerant must be sent off-site for reclamation or recycled on-site. The Agency also proposed that, as prescribed in the SAE J Standards, refrigerant received from an off-site reclamation facility that is intended for recharge of automobiles must been the Air-conditioning and Refrigeration Institute standard of purity (ARI Standard 700-88) for CFC-12.

The proposed definition of properly using was intended to apply to facilities that own an on-site recycle machine or an on-site recycle machine and several recover only machines (such as large establishments with many service bays) as well as small facilities that purchase one piece of recover only equipment. The Agency believes that the requirement that such equipment be properly used will ensure that recovered refrigerant is not vented to the atmosphere. The Agency wishes to highlight that under the properly using definition, refrigerant introduced into the system for the purpose of leak detection must be recovered and not vented.

Three commenters supported EPA's proposed properly using standard, stating that if EPA allowed recover only equipment to be used, the Agency should require that recovered refrigerant be either recycled on-site or sent off-site for reclamation as a means of minimizing prospects of contamination of motor vehicle air conditioners. These commenters suggested that the Agency consider methods to assure that the reclamation facilities have the capability to reclaim refrigerant to the ARI 700-88 standard. EPA does intend to consider requirements for reclamation facilities in the section 608 regulation under the Act.

Several commenters questioned whether several service establishments owned by a single owner may recover refrigerant and send the refrigerant to a central location for recycling to the SAE J1991 standard for CFC-12. The Agency believes that this practice may be a cost effective option in some situations. To minimize the risk of contamination (whether intentional or unintentional), this option will only be available when the owner of the recover only equipment is also the owner of the recover/recycle equipment and is therefore able to assure direct recycling of refrigerant from motor vehicles for use in motor vehicles serviced at his facilities. The equipment used to recycle the refrigerant must meet the standards for CFC-12 recycle machines adopted in appendix A.[4] Franchised or chain

[4] The equipment standards in Appendix A are designed for equipment that recovers and recycles

Continued

service establishments (i.e. those service establishments that share a common name but are separately owned) may not use this option.

This is the only exception to the on-site requirement for recycling. In all other cases, if refrigerant leaves the service establishment then it must be reclaimed to the ARI 700–88 standard to assure purity. The on-site requirement is important because equipment certified to meet the SAE standards is only capable of cleaning CFC–12 to the SAE J1991 standard if that refrigerant has been removed from a motor vehicle; refrigerant from another type of air conditioning or refrigeration system may contain contaminants, such as acid formed in a compressor burn-out, that such equipment is not designed to remove. Introduction of this contaminated CFC–12 could result in severe damage to the motor vehicle air conditioner. This type of damage would destroy consumer confidence in recycled refrigerant and jeopardize the success of the recycling program.

*B. Equipment Certification*

1. Approved Equipment

In the September 4, 1991 Notice of Proposed Rulemaking, the Agency proposed defining the statutory term "approved refrigerant recycling equipment" to include two types of equipment. One type, recover/recycle equipment, both extracts refrigerant from the motor vehicle air conditioner and cleans the refrigerant on-site. The other type of equipment, recover only, extracts the refrigerant from the motor vehicle but does not clean the refrigerant. The refrigerant from these recover machines must be sent off-site for reclamation or recycled on-site. The Agency proposed this definition to provide flexibility to the regulated community and to maximize environmental protection while protecting air conditioning units from damage. The September 4, 1991 notice proposed Appendix A as the standards to which recover/recycle equipment would have to be certified. The supplemental notice published on April 22, 1992 proposed the standard for recover equipment as Appendix B.

The terms "extraction", "reclamation" and "recycle" are terms of art currently used by the industry, and refer to the removal of refrigerant (extraction), processing of the refrigerant off-site to a near virgin condition of purity (reclamation), or processing of the refrigerant on-site to a condition acceptable for reuse as a refrigerant in the same vehicle, without the need to send it off-site for reclamation (recycle).[5] The ANPRM published May 1, 1990 and the NPRM published September 4, 1991 defined these terms.

Seen against this background, the section 609 definition of "approved refrigerant recycling equipment" [6] is an ambiguous term, leaving EPA with the obligation to establish its meaning in a way that best effectuates the goals of this section. First, the statutory definition of "refrigerant recycling equipment" refers to equipment that "extracts and reclaims". The recycle equipment normally used in this context however is equipment that cleans the refrigerant on-site, but does not reclaim it. The latter term is reserved for refrigerant that is sent off-site for distillation to a higher standard of purity. At the same time, section 609(b)(2) references SAE J1990, which states that its purpose is to "provide equipment specifications for * * * recycling and/or recovery, and recharging systems." [7]

The legislative history fails to resolve this ambiguity in the statute. However, it does appear clear from the terms and structure of section 609 that Congress focused on activities conducted at the service establishment, whether recovery or recovery/recycle, and was not legislating specification for off-site equipment used to reprocess refrigerant to near virgin purity.

EPA, therefore, attempted to define "approved refrigerant recycling equipment" with the view of providing environmental protection, and providing the affected industry flexibility to meet the changing nature of refrigerants. For all the reasons described in the September 4, 1991 Notice, EPA proposed a definition including both types of equipment.

The comments submitted on this issue focused primarily on the feasibility and practicality of the proposed definition, and not on EPA's authority to include recover only equipment. One commenter, however, argued that SAE standard J1990 set the minimum requirements for "approved refrigerant recycling equipment." Since section 3.1 of this SAE standard established that the equipment must be able to extract and process refrigerant, recover only equipment could not meet the minimum requirements as stringent as J1990, and, therefore, could not be approved. Congress, by incorporating SAE J1990 in section 609, intended that EPA adopt the then existing automotive recycle program, which did not extend to recover only equipment. The commenter did seem to accept that EPA could approve recover only equipment in the future if such equipment was found to be necessary, for example with respect to future refrigerant blends.

The commenter's arguments do not persuade EPA that it lacks authority to interpret refrigerant recycling equipment as including recover only equipment. First, the portion of SAE J1990 noted above and quoted in the comments does no more than highlight an apparent inconsistency in that document. It does not remove the ambiguity present in this statutory term, and does not indicate a clear Congressional intent to exclude recover only equipment from approval under Section 609. In addition, the Agency's restrictions on the use of recover only equipment [8] tie it closely to the extraction, recycling or reclamation process. Finally, for the reasons discussed below, EPA believes that it is reasonable to interpret "approved refrigerant recycling equipment" to include recover only equipment.

As noted earlier, the majority of commenters focused not on the legal issue of statutory interpretation, but on the proper policy for EPA to follow; in effect, not whether it could approve such equipment, but whether it should do so. Seventeen commenters supported allowing both certified recover/recycle equipment and recover only equipment to meet the definition of approved equipment. The commenters cited the importance of allowing service establishments the flexibility to chose equipment that suits their individual circumstances. Commenters believed that this would increase compliance with the requirements. Many commenters noted that recover only equipment has a lower initial cost than recover/recycle equipment and that many service establishments are already using this type of equipment. This equipment is also used in conjunction with recover/recycle equipment, for example in service establishments with several service

CFC–12 refrigerant. As necessary, EPA will adopt additional standards that will govern the approval of equipment designed to recover/recycle other refrigerants.

[5] Industry has adopted separate voluntary standards for the purity of refrigerant, depending whether it is sent off-site for reclamation (ARI 700–88) or is recycled on-site (SAE J1991).

[6] Section 609 defines the term as "equipment certified by the Administrator * * * to meet the standards established by the Administrator and applicable to equipment for the extraction and reclamation of [motor vehicle air conditioner] refrigerant * * *". The standards that EPA sets are to be as stringent as one set by the Society of Automotive Engineers, SAE J1990.

[7] See § 1. "Scope", SAE Standard J1990.

[8] For example, any recovered refrigerant must be recycled on-site or sent off-site for reclamation except for the limited situations described in III.A.5.

bays. Commenters stated that the lower initial cost will become increasingly important in the future when different refrigerants (e.g. HFC–134a, blends) enter the motor vehicle servicing market. Commenters mentioned the importance of recover equipment for the salvaging of refrigerant from disposed automobiles (requirements that will be covered under section 608 of the Act) and that refrigerant sent off site for reclamation is actually purified to a higher standard than refrigerant recycled on-site. Commeters disputed claims that the use of recover only equipment would lead to an increased risk of venting refrigerant or contamination through the reuse of unrecycled refrigerant.

The Agency received five comments opposed to recover only equipment in the motor vehicle servicing sector. MVMA opposed recover equipment for several reasons. MVMA stated that approval of recover only equipment does not reflect Congressional intent or the intent of the automobile industry when they developed the voluntary program for CFC recycling. The Association suggested that recover only equipment would lead to venting of refrigerant. It would jeopardize the purity of refrigerant in the motor vehicle sector because of the economic incentives derived from the greater economic value of refrigerant ready for use in a car as compared to refrigerant sold for reclamation. MVMA also stated that the use of recover only equipment is not cost effective, whereas recover/recycle equipment is cost effective and more easily implemented. MVMA argued that the potential need for recovery of other refrigerant in the motor vehicle sector did not justify the use of recover only machines. Other commenters emphasized the need to require off-site reclamation if recover only equipment were allowed, and mentioned that the limited number of reclamation centers across the country could render the recover only option unworkable.

The Agency understands that the voluntary recycling program, which it supported, and the SAE standards were intended to establish and promote on-site recycling, and agrees that on-site recycling may well be an efficient option for most service entities because of the efficiency of the procedure. However, the Agency believes that approving two separate standards for equipment provides both environmental protection and needed flexibility to the regulated community. As stated in the proposal, the cost effectiveness of equipment is dependent on the number of service jobs performed and the price of virgin refrigerant. Some service establishments may find it more cost effective to comply with the regulations by purchasing recover only equipment.

As stated in the September 4, 1991 notice and the April 22, 1992 supplemental notice, the Agency examined the relative environmental consequences of using the two types of equipment. For example, the efficiency of removal of refrigerant is equivalent between the two types of equipment and both types of equipment separate the lubricant from refrigerant to indicate the amount of lubricant that must be returned to the system. Unlike recycling equipment, recover only equipment does not purge non-condensable gases during operation. Such purging in recover/recycle equipment may result in the loss of 5 percent of refrigerant in a purge. Recover only equipment therefore provides at least as much protection from the release of refrigerant as recover/recycle equipment.

Flexibility is also an important consideration for the potential need to recover other refrigerants in the motor vehicle sector in the future. Several automobile manufacturers have announced that HFC–134a is the designated replacement for motor vehicle air conditioners in new cars beginning as early as 1992 in some models. This substitute must be recycled under the Act, effective November 15, 1995. For retrofit of existing CFC–12 systems, research is currently underway to determine an appropriate substance and both HFC–134a and HCFC blends are being considered. Under the Act, blends containing HCFCs are subject to this regulation if they are used in motor vehicle air conditioners and recover only equipment approved for use with blends may be an attractive option in this case. The Agency does not wish, as a result of delays associated with the regulatory process, to impede the progress of the sector as it addresses the challenges of alternative refrigerants in the future.

The Agency is very concerned about the issue of contamination of refrigerant raised by MVMA's comments but believes that the option of two types of equipment will not increase the risk of contamination or venting. On the issue of contamination, the Agency notes that regardless of how the refrigerant is extracted, today's rule requires that it be purified to standards that allow its safe use in motor vehicle air conditioners before it is so used. Refrigerant recycled on-site must be cleaned to the SAE J1991 standard of purity for recycled refrigerant. Any refrigerant that leaves the site must be reclaimed to the ARI–700 standard of purity, a standard developed by the Air-conditioning and Refrigeration Institute that defines the level of quality for reclaimed refrigerants. The only exception to this is described in section III.A.5. under the definition of "properly using." Moreover, recharging motor vehicle air conditioners with used refrigerant that has not been purified in accordance with the applicable standard is prohibited.

The proposed standard for recover only equipment would make it highly unlikely that refrigerant extracted using recover only equipment would be reused in recharging motor vehicle air conditioners before being purified. That standard would require that "[t]he equipment discharge or transfer fitting shall be unique to prevent the unintentional use of extracted CFC–12 to be used for recharging auto air conditioners." In other words, recover only equipment would have to be designed so that it can be connected, for example, to a recover/recycle machine for recycling of extracted refrigerant, but could only be directly connected to the recharging equipment under circumstances of intentional tampering. It would therefore be extremely difficult for recover only machines to be misused in the way MVMA fears. In addition, it is unlikely that persons in the business to service motor vehicle air conditioners would knowingly use contaminated refrigerant since they have an interest in satisfying customers and not injuring the customer's air conditioner.

As for venting, EPA believes that there is little chance that use of recover only machines would lead to venting. First, such venting is prohibited by these regulations for both recover only and recover/recycle equipment. Second, recover only equipment users would have an economic incentive not to vent but to either recycle or reclaim the extracted refrigerant. Since unpurified extracted refrigerant may not be used to recharge motor vehicle air conditioners, recover only equipment users can be expected to either recycle the extracted refrigerant before recharging the air conditioner, or to sell it to reclaimers. Finally, any risk of venting or contamination from the use of recover only equipment should be minimized by the required technician training and certification, which will alert technicians to the proper procedures to be followed.

Several commenters questioned whether one owner with several service establishments using recover only equipment could ship refrigerant to a

central location for recycling, as opposed to reclamation where the same owner owns the recover only equipment and the recycling equipment. As discussed under the definition of "properly using" (section III.A.5), the Agency believes that this practice may be a cost effective option in some situations. The Agency wishes to clarify that because of the importance of protecting refrigerant and the inability to assure the source of the refrigerant once it leaves the service site, this is the only exception that can be made from the on-site recycling requirement. A company may also wish to set up a central reclamation facility if it wishes to assure the purity of refrigerant.

EPA shares the concern of commenters regarding the limited number of reclamation facilities in the country. Any service establishment considering the purchase of recover only equipment should first determine if refrigerant reclamation opportunities exist in their area and the cost of using such service. The Agency would like to encourage the development of reclamation operations with the capability to clean refrigerant to the ARI-700 standard. It is of utmost importance to the proper functioning of air conditioning equipment that all refrigerant sold by reclaimers meets the ARI-700 standard of purity. Therefore, the Agency will consider a reclaimer certification program under its section 608 requirements. In developing the requirements, the Agency will consider the commenters' concern for periodic inspections of refrigerant quality and any possible measures to facilitate the development of the reclamation network around the country.

SAE commented that the 1989 version of SAE standard J1990 has been revised by SAE to add clarity and specification. Changes include the following:

(1) Section 1 of J1990 was revised to clarify that the scope of the standard applies to recover/recycle equipment, and not to recover only equipment (this is consistent with the SAE draft standard J2209 which applies to recover only equipment);

(2) Section 3 of J1990 added a labeling requirement, referring to the standard;

(3) Section 4 of J1990 is more specific regarding purge devices required for non-condensable gases (NCG). The equipment must either have an automatic purge device to expel NCG, or have a device that warns the operator if the limit for NCG has been received. In addition, a limit was placed on the refrigerant loss from the purging of NCG; the limit was set at 5% by weight of the total refrigerant recovered;

(4) Section 7 of J1990 clarified the requirement in the 1989 version that the equipment reduce the system to a vacuum. Revised J1990 requires that the equipment reduce system pressure to a minimum mercury level (4 in./102 mm) below atmospheric pressure; and

(5) Section 7 of J1990 also clarified the section regarding the extraction of used lubricants, for example discussing the need to only use new lubricant to replace the amount removed. The equipment must take into account the amount of refrigerant dissolved in the lubricant to avoid indicating the recovery of more lubricant than actually removed.

EPA agrees that the final standard for recover/recycle equipment should include these revisions to J1990 because the Agency believes these changes are minor in nature, and are not a significant change to the 1989 version of J1990 that EPA proposed in the NPRM. For example, section 4 of J1990 (1989) required a device to alert the operator that the NCG level had been exceeded, if the equipment had a self-contained recovery tank. The 1991 version expands on this concept. With respect to the amount of refrigerant loss attributable to purge of NCG, EPA noted in the NPRM that UL estimated that CFC-12 releases were well under 5% in machines certified prior to that date. With respect to the specification of a vacuum level, the change clarifies an ambiguous term in the old standard but does not change the level of extraction efficiency. The same can be said for the changes regarding lubricant extraction.

While including the changes to J1990 in the standard for recover/recycle equipment, EPA will only apply this revised J1990 standard to recover/recycle equipment certified after February 1, 1992. The standard for equipment certified prior to that date shall be J1990 (1989), the version proposed in the NPRM. EPA is taking this action for several reasons. First, a large number of recover/recycle machines have already been purchased, with the overwhelming majority of them certified to J1990 (1989). It would impose a significant economic burden to require equipment owners to either recertify their equipment or purchase new equipment. Second, as discussed above, the changes made to the 1989 version of J1990 are minor in nature and do not reflect any significant increase in environmental protection. Third, the 1989 version of J1990 clearly meets the statutory requirement of Section 609(b)(2)(A)—that section of the Act refer, in fact, to the 1989 version of J1990 as the minimum standard for equipment. Fourth, February 1, 1992 is a reasonable date to use as Underwriters Laboratory started using revised J1990 for all equipment submitted for certification after that date.

Three commenters objected to the statement in the September 4, 1991 notice regarding the appropriate method to handle the lubricant removed from refrigerant by either recover/recycle or recover only equipment. In the proposal, the Agency stated that the lubricant should be handled in the same manner that the service establishment handles used oil. Since the publication of the September 4 notice, the Office of Solid Waste and Emergency Response published a Supplemental Notice of Proposed Rulemaking on used oil characterization and management standards (56 FR 48000, September 23, 1991). The Agency would like to clarify that the presence of CFCs in used lubricant may have implications for how the used lubricant should be handled. The Agency refers persons to that rulemaking for further information on this issue.

2. Substantially Identical Equipment

The Act states that equipment purchased before the proposal of regulations under this section shall be considered certified if it is "substantially identical" to approved equipment. In the NPRM, the Agency proposed a process for review of uncertified equipment that would rely primarily on the manufacturer submitting information, such as process flowsheets, lists of component, or laboratory tests, to the Agency for review. Owners of equipment may also submit information to the Agency if they are unable to establish the status of equipment through the manufacturer. The Agency stated that it would narrowly interpret the substantially identical clause in order to protect the air-conditioning units and the integrity of the recycling program.

Several commenters agreed that EPA should maintain a strict interpretation of the substantially identical clause while others stated that EPA should recognize industry efforts by not declaring equipment purchased and used in good faith to be obsolete. In response to the latter group of comments, EPA points out that Congress' clear intent in providing an exception for substantially identical equipment was to credit industry efforts undertaken before the development of regulations to the greatest extent possible without endangering the environment and air conditioning equipment.

The Agency would like to clarify that recover/recycle equipment that has

been design certified by Underwriters Laboratory [9] as meeting the SAE standards in appendix A is considered approved equipment for the purposes of this regulation. The first recover/recycle equipment was certified in September, 1989. Such equipment should be labeled with UL's "design certified to meet SAE Standards" sticker. This should not be confused with other UL listing stickers that indicate satisfactory performance in safety testing only. The Agency understands that the vast majority of recover/recycle equipment sold has been design certified by UL, and EPA maintains a list of the certified models. The list is available to the public upon request to the address that appears in § 82.36.

The Agency would also like to clarify that it can only review equipment to determine if it is substantially identical to certified equipment once applications for review have been received. One commenter's suggestion that the Agency inventory and review every model of equipment ever sold is resource intensive and impractical. The Agency encourages equipment manufacturers that have models that do not have UL certification to submit applications for equipment they believe to be substantially identical to certified models. This includes retrofit packages that the manufacturer believes will result in equipment performance to certified levels. The Agency's review will concentrate on the aspects of equipment that vary from certified models. As stated in the proposal, an essential element of such review is that recover/recycle equipment purify refrigerant to the SAE J1991 standard of purity. For recover only equipment, essential elements of review are that equipment remove refrigerant as efficiently as approved equipment under the SAE J2209 standard and also that equipment separate lubricant.

The Agency realizes that the statutory deadlines require quick review of the information submitted. As soon as determinations are made, equipment determined to be substantially identical will be placed on the approved equipment list as "approved if purchased before September 4, 1991" for recover/recycle equipment and "approved if purchased before April 22, 1992 for recover only equipment. While equipment that EPA has not reviewed may in fact be substantially identical, an EPA determination on this point is important so a regulated party may verify their compliance in advance.

*C. Independent Standards Testing Organizations*

1. Summary and Response to Comments

In the proposal, EPA stated that organizations interested in obtaining approval as independent standards testing organizations must apply to the Agency and demonstrate that they are capable of performing equipment testing to the applicable standards. One commenter stressed the importance of highly trained, qualified staff. In addition, commenters argued that the standards testing organization should not be owned or controlled by manufacturers or vendors of the product being tested, to promote objectivity and preclude conflicts of interest. In general, various commenters considered the criteria proposed in § 82.38(b)(1)–(5) lacking in detail and substance.

EPA agrees that staff expertise is very important, as are objectivity and lack of conflicts of interest. However EPA believes these factors are fully addressed in the proposed regulations. For example, the proposal required that the applicant must demonstrate "[e]xpertise in equipment testing and the technical experience of the organization's personnel." In addition, the organization could have no conflict of interest and receive no financial benefit from the outcome of certification testing." [10] These criteria provide adequate detail and substance for an applicant to prepare its submission and guide the agency in its determinations. Evidence supporting this are the detailed and substantive applications that have already been submitted. Accordingly, the Agency is adopting the criteria as proposed, excepting changes for purposes of clarification.

One commenter urged EPA to make clear that UL 1963 and the SAE standards apply only to motor vehicle air conditioning equipment. This commenter correctly points out that there are separate industry standards (ARI Standard 740–91) that apply for equipment used for recovery and recycling in the other air conditioning and refrigeration sectors.

Equipment that recovers and recycles refrigerant must be certified to meet the SAE standards in appendix A. While EPA is not promulgating a specific test procedure that each independent standards testing organizations must follow, EPA does want to emphasize that EPA's review of an application of an organization for approval under section 82.38 will include a review of the test procedure the organization intends to employ. The application for approval will need to include information on the proposed test procedure and an explanation of its adequacy. Any approval of an organization will be contingent on use of such test procedure. While EPA considers this implicit in the criteria proposed in the NPRM, EPA is clarifying the final regulation to reflect the above.

EPA notes that the approval of UL, discussed herein, is based in part on the testing protocol developed by UL known as UL1963. EPA expects that a UL testing protocol will also be developed for testing the ability of recover only equipment to comply with applicable SAE standards. The Agency anticipates that a UL testing procedure will also be developed for this equipment.

2. Approved Independent Standards Testing Organizations

The Agency received an application for approval for UL on October 21, 1991, and from ETL Testing Laboratories, Inc on November 27, 1991. The Agency has reviewed their applications in detail and has formally approved UL and ETL Testing Laboratories, Inc. as independent standards testing organizations. This approval will be effective as of August 13, 1992. EPA encourages applications from other facilities that are capable of testing equipment to the necessary standards. The Agency recognizes that since a large amount of equipment has already been certified, additional laboratories may not find it cost effective to enter the certification market for equipment certified under this section of the Act. The EPA will maintain a list of approved independent standards testing organizations available upon request at the address in § 82.38. As stated in the proposed notice, the Agency reserves the right to revoke approval if the testing organization violates any of the requirements contained in § 82.38.

*D. Technician Training and Certification*

In the September 4, 1991 notice, EPA proposed standards for training and certification in the proper use of approved refrigerant recycling equipment during service of motor vehicle air conditioners. The standards were designed to assure that all aspects

[9] EPA discusses its approval of Underwriters Laboratory (UL) under 40 CFR 82.36 as an "independent standards testing organization" in section III.C.

[10] In response to a comment seeking clarification, this condition clearly allows an independent standards testing organization to generate a reasonable profit margin. However, it would preclude, for example, charging a fee based on the results of a test, as well as ownership of the testing organization by a manufacturer or vendor of the equipment being certified.

of the use of approved equipment are covered by certification programs while preserving flexibility in testing mechanisms. The Agency believes flexibility in testing mechanisms is important in technician certification because of the large number of technicians that must be certified in a very short period of time. In addition, service technicians are employed in a wide variety of circumstances and businesses, such that no one program may be adequate for all the situations involved.

Several commenters suggested that EPA had exceeded the intent of the statute by proposing a training, test administration and certification process, and that uniform Federal certification standards are excessive and unworkable. The language and the intent of the statute, however, explicitly requires EPA to establish standards for certification and training. In specified circumstances, section 609 of the Act prohibits the service and repair of motor vehicle air conditioners except by properly trained and certified personnel.[11] Under Section 609(b)(4), EPA is to establish the standards for such training and certification, subject to a minimum stringency level set by statute. EPA proposed to accomplish this goal by establishing a process to approve technician training and certification programs. The proposed criteria for approval of such programs balances flexibility of program design with an assurance that adequate training would be provided.

Several commenters raised the issue of self-certification, especially employer self-certification of employees as in the DOT certification for fleet mechanics and drivers. The commenters appeared concerned that only a limited number of national training and certification programs could seek approval under the proposed regulations. In addition, they were concerned that these national organizations could not train and certify a large number of technicians in a short time.

The Agency would like to clarify that the two programs mentioned in the statute, the Mobile Air Conditioning Society (MACS) or the National Institute of Automotive Service Excellence (ASE), are not the only training and certification programs that can seek EPA approval. The Agency did consider these programs, in addition to other certification programs and consultation with industry, government officials, and environmentalists, in developing the minimum criteria as they appeared in the proposal. Companies do have the option of developing their own certification program for their technicians; however, the Agency must review these programs to assure that they conform to the minimum criteria. The intent of the criteria is to establish a framework for certification under which a variety of entities, including testing organizations, individual companies, fleets and vocational schools, may design certification programs.

The commenters did not provide details on the DOT program mentioned. EPA understands it to involve training at the service establishment, with the service establishment then maintaining records of training. DOT does not review and approve the individual service establishments' training programs. EPA has serious questions whether such a program meets the minimum requirements set forth in section 609(b)(4). In addition, as described above, the review and approval process under section 82.40 should provide the needed flexibility for a wide variety of organizations, from the national, state and local levels, to obtain approval as technician training and certification programs.

The Agency is aware that many technicians may find independent testing organizations a simple and cost effective mechanism to achieve certification. Also, many companies who train their technicians may choose to use an independent testing organization's program to test or certify their technicians after training. The Agency does not wish to discourage any company from developing its own training and certification program and will assure parity across programs through a review of how each program meets the criteria. Agency review is important to assure veracity of information and fairness in testing. For a discussion of the review status of the programs developed in advance of this final rule, see section D.7.

The Agency received several specific comments on the various criteria proposed for technician certification programs.

1. Training

EPA proposed that each approved program must provide adequate training, using one or more of various formats: On-the-job training, training through self-study of instructional material, or on-site training involving instructors, videos or a hands-on demonstration. Three commenters suggested that hands-on demonstrations should be required in each technician certification program. In developing the proposal, EPA reviewed the actual operation of recover/recycle and recover only equipment and determined that proper operation could be adequately described and demonstrated in self-study instructional material as well as other kinds of instructional material. This is because the skills needed to properly use such equipment do not differ substantially from the skills technicians already possess for servicing the motor vehicle air conditioner. There is no evidence to suggest that this determination is inaccurate and therefore the Agency will not require hands-on demonstrations as a minimum standard. The Agency recognizes that demonstrations are valuable and would like to encourage their use whenever possible, including manufacturer demonstrations of equipment upon purchase. The Agency is aware that some technician certification programs already incorporate demonstrations. The Agency does have the authority to revoke a certificate if a technician fails to demonstrate for an authorized representative of the Administrator his or her ability to properly use the equipment.

2. Test Subject Material

EPA proposed that certification tests adequately address the relevant SAE J standards established for the service and repair of motor vehicle air conditioners, anticipated future technological developments (such as the introduction of HFC-134a), environmental consequences of refrigerant release and the adverse effects of stratospheric ozone layer depletion. In addition, the certification tests were to cover the general regulatory requirements under section 609 to assure that technicians are familiar with the legal requirements regarding service.

EPA received comments requesting that EPA "grandfather" technicians that were trained and certified before the promulgation of this rule. The Agency is aware that thousands of technicians have been certified in advance of the effective date of this final rule in anticipation of the final requirements and also as part of the voluntary program developed several years ago. These technicians would not have had the opportunity to receive training on the specifics of either section 609 of the Act or of these implementing regulations.

EPA believes it is important that training address the requirements imposed by the Administrator under section 609 of the Act, and will require

[11] The effective date of this prohibition depends on the size of establishment and the filing of a proper small volume certificate. See the discussion in section I.H herein.

that all training conducted by approved programs include such subject material for training conducted after the effective date of these regulations. However, training conducted before the effective date of these regulations need not include the specifics of the final rule. EPA is taking this action for several reasons. First, EPA believes that training on the requirements imposed by the Administrator under section 609 of the Act is quite valuable, but is not necessary to meet the legal standards required under section 609(b)(4). This is shown by the Act's reference to the then existing MACs and ASE training programs, which could not have included the then future regulatory requirements imposed by EPA in implementing section 609. Second, large numbers of technicians have already been trained and certified, and it would be a great burden and perhaps impossible to quickly retrain and recertify all of these technicians. Third, EPA believes that many technician training and certification programs did include training material on the requirements of section 609 and EPA's proposed regulations as soon as such information was available.

As stated in the proposal, the technician certification program is not intended to test the technical skills of technicians regarding the diagnosis and repair of motor vehicle air conditioners. The basic goal of the technician training and certification program is to teach technicians how to properly recover and/or recycle refrigerant, and why it must be done to protect the stratospheric ozone layer.

The supplemental notice published April 22, 1992, proposed an additional equipment standard for motor vehicle air conditioner service. Once the standard for recover only equipment is finalized, technician training and certification programs will have to include training and testing on the proper use of such equipment. For a further discussion, see section III.D.7.

3. Test Administration

In the proposed criteria, the Agency did not specify details of certification tests such as the number of questions, the passing scores required, the format of questions or the number of versions of tests. EPA's goal was to stimulate the development of a number of certification programs designed to meet the diverse needs of the technician community. For example, the Agency is aware that several open-book, unproctored tests and closed-book, proctored programs have been developed. Some programs use video training, while others stress written material or hands-on demonstration. As stated in the proposal, the number and format of test questions may vary depending on the testing scheme employed. At the same time, the questions must be adequate to cover the subject material in sufficient depth and detail. Individual companies interested in providing a certification opportunity for their employees may develop a program that reflects their existing training structure and seek EPA approval under § 82.40. EPA's goal in reviewing programs will be to assess whether each program meets the minimum standards in § 82.40. The Agency encourages programs to surpass the minimum standards and develop superior programs, but this is not a requirement.

EPA specifically requested comment on the validity of open-book testing for technician certification. Most commenters supported open-book testing as a valid minimum testing procedure; however, many commenters stated that proctors should be required whether the tests are open-book or closed-book. Commenters questioned the validity and quality of unproctored testing.

In developing standards for the certification of technicians under section 609, the Agency examined existing industry certification programs such as ASE and MACS, as well as other types of testing formats, including correspondence courses. One program referred to in Section 609(b)(4), MACS, employs non-proctored exams. Given the large number of technicians dispersed through a multitude of cities and towns in the country, and the Act's short statutory timeframes, the Agency believes that requiring proctored exams would require technicians to travel to a limited number of testing locations and would be infeasible for many technicians.

The proposed test administration criteria would require that programs establish sufficient measures to assure that tests are completed honestly by technicians and that there are methods for assuring technician identity. Examples include requiring signatures of technicians on test forms, requesting social security numbers, using multiple versions of tests and use of proctors in testing situations. Proctored exams are one, but not the only available method and certification programs are free to develop their combination of methods to assure valid testing. The Agency commends the procedures of many of the programs that have already been submitted to the Agency as effective yet not burdensome.

In the September 4, 1991 notice, the Agency described how open-book testing, if structured properly, could result in technicians having the necessary knowledge to properly perform refrigerant recovery and recycling, a subset of the knowledge needed to perform effective service on motor vehicle air conditioners. Several certification programs that have been developed incorporate proctors and the Agency commends this action. As a minimum standard, however, the Agency will allow technicians access to unproctored testing such as mail-in programs, assuming the test program meets all the criteria in § 82.40.

The Agency received several comments on the proposed requirement that completed tests be sent to an independent testing authority for grading. Commenters questioned whether any real benefit was obtained from such a requirement, since open-book, unproctored tests would be allowed. The requirement was also considered costly and unnecessary. Commenters sought clarification on various points, such as whether a non-profit entity associated with the sponsoring certification program would be an independent testing authority for grading.

EPA originally proposed this requirement, on the advice of motor vehicle air conditioning industry representatives, to avoid certification programs that did not actually test learning of material presented but merely provided a "certificate of attendance". The Agency also sought to minimize the potential conflicts of interest that might arise, such as in certification programs that wish to guarantee certification or individual companies that have a vested interest in assuring all employees pass the test. The concept of an independent testing authority was based on both programs mentioned in section 609 of the statute, which incorporate grading services or computerized grading of their existing exams. The goal was to incorporate neutrality into the grading process.

The Agency continues to believe that neutrality in the grading process is an important goal. To clarify the regulatory language, § 82.40 will be changed to state "Completed tests must be graded by an entity or individual who receives no benefit from the outcome of testing; a fee may be charged for grading". Programs submitted for EPA approval must demonstrate that the grading entity is neutral. Examples of independent grading include a scoring establishment which is a separate non-profit association associated with the

sponsoring certification program, a contracted grading company or individual and computerized grading services.

The Agency wishes to clarify that although it supports certification programs making provisions for non-English speaking technicians (indeed there is a great need for these provisions in certain areas of the country), this is not a requirement. The Agency does commend the efforts of the programs that have already made progress in this area.

4. Technical Revisions

Two commenters stated that the proposed requirement to review certification programs periodically and submit a written summary of the review and any changes to the Administrator every two years was excessive. They recommended that review of program content should only be triggered by the introduction of new equipment or refrigerants. The Agency believes the nature of the motor vehicle air conditioning market is rapidly changing, as evidenced by the development of the SAE J2209 standard for recovery only equipment. In this context, EPA has determined to keep the review provision as proposed. The Agency fully anticipates that certification programs will review and revise their program content more often than every two years (for example, each time they order reprints of instructional material or tests) in order to stay current in the field. Requiring these updates to be reported to the Administrator assures accuracy of information and maintains parity among programs.

5. Recertification

Two commenters favored EPA's proposal that it would reserve the right to require recertification of technicians in the future, if necessary. Three commenters maintained that periodic recertification would be unnecessary, burdensome and beyond the intent of the Act.

EPA believes the need to retest and recertify technicians in the future should be limited because certification programs are required to address the anticipated changes in motor vehicle air conditioning and to periodically review their programs. However, the Agency believes it is important to reserve the right to require recertification if environmentally significant changes in equipment for motor vehicle air conditioning occur.

6. Proof of Certification

No commenters disagreed with the proposed requirement that each training and certification program offer individual proof of certification upon successful completion of the test. Proof of certification is essential for the purchase of small containers of class I or class II substances. Several commenters disagreed with or questioned the related proposal that unique numbers be provided for each certified technician by certification programs.

Several programs already use the technician's social security number as a unique number, while other programs number tests distributed for their own recordkeeping purposes and then assign that number to the technician when he or she successfully completes the exam. Agency inspectors may need access to technician certification numbers to verify compliance with the regulation. In addition, the Agency may need these numbers to prove non-compliance with the regulations in an enforcement action. Unique numbers will aid in meeting these compliance and enforcement activities. In addition, it presents little if any burden on these programs to provide such unique numbers. Unique numbers within programs are also needed to distinguish between technicians with the same name. Programs must only assure that the numbers assigned within their own programs are unique. EPA will not provide these numbers, and will not require that the numbers be reported to EPA by technician certification programs because of the administrative burden associated with this activity on a national basis, and the need to coordinate between several programs.

7. Approval of Programs

The Agency is aware of three technician certification programs that have already certified several thousand technicians. One program, given by the Mobile Air Conditioning Society, was developed as part of the voluntary program established before the 1990 amendments to the Act. Two programs, given by the International Mobile Air Conditioning Association and the National Institute of Automotive Service Exellence, were developed in advance of the proposed rule. Several programs, including these three, applied for approval under § 82.40. EPA has completed its review of these three applications, and based on this review, EPA has formally approved them as technician training and certification programs. This approval will be effective as of August 13, 1992.

Two aspects of this approval should be noted. First, in light of the fact that these programs have already trained and certified numerous technicians, training and certification conducted by these programs prior to the effective date of the approval will be considered valid for purposes of these regulations as long as the training and certification was conducted in conformity with the training and certification program approved by EPA. The earliest date for which the Agency will accept training under these requirements will be September, 1990, which the Agency understands to be the date that the first technicians were certified under the MACS program. Second, all training and certification conducted after the effective date of any standards adopted for recover only equipment (Appendix B) must cover such standards in the training and testing. Since the procedures for extraction of refrigerant are very similar for both recover/recycle equipment and recover only equipment, EPA expects that technicians trained and certified by these programs prior to the final adoption of recover only standards would not need to be retrained and recertified with respect to the appendix B standards. That issue, however, will be addressed when EPA promulgates the final appendix B standards At this time, the Agency believes that programs should incorporate the specifics of the labeling of containers of recovered refrigerant into certification programs as soon as possible. The Agency encourages recover only equipment salespersons to reiterate to technicians that equipment meeting the SAE J2209 standard does not clean refrigerant and thus refrigerant captured with these machines must be recycled or sent to a reclamation facility, as specified in EPA's definition for the proper use of such equipment.

Several commenters questioned whether programs approved by states or localities were automatically approved by the EPA. Commenters also suggested that EPA accept state approved programs where the state standards are either substantially equivalent or more stringent than the Federal requirements.

Certification by a state program is not a substitute for training and certification by a Federally approved program. The Federal requirements established by section 609 of the Act and these regulations are separate and distinct from any valid state laws or regulations that may apply. Compliance with one does not automatically guarantee compliance with the other. At the same time, state-approved programs may apply to EPA for approval under EPA's regulations. Approval by EPA of such a program will be based on compliance with the requirements of § 82.40, which

may be more or less stringent than applicable state requirements.

The Agency is aware of three state or local technician certification regulations (Florida, Wisconsin, and the South Coast Air Quality Management District in California). EPA will work with the relevant entities to review the requirements of their regulations and the approval process of any technician certification programs not already reviewed by the Agency to assure that no program falls below the minimum Federal standards.

The Agency is aware that some states may have approved technician certification programs in advance of promulgation of the EPA requirements using criteria different than the proposed Federal criteria. EPA also believes these differences are limited to the Test Administration criteria contained in § 82.40. With this problem in mind, EPA believes it is reasonable to modify § 82.40 to authorize approval of a training and certification program that meets all but the Test Administration criteria of that section. This would be allowed, however, only if the program, when viewed as a whole, is as or more effective than a program that does meet all of those criteria.[12]

EPA is taking this action for several reasons. First, EPA is aware that the statute and these regulations require the training and certification of a large number of technicians in a short period of time. These state-approved programs, as well as a variety of other programs, have already started this process to meet Federal and/or state or local requirements. This provision should allow additional flexibility in meeting these training and certification requirements, and will avoid penalizing activities conducted prior to the promulgation of these regulations. Second, programs approved under this provision can be expected to provide the same or better quality of training and exhibit the same or better level of validity in the certification process, since the program will have to show EPA that when viewed as a whole it is as good or better than programs which meet all of the criteria.

EPA has decided to limit this provision, however, to training and certification provided prior to the effective date of these regulations. After that date, all programs will have had adequate notice of the Federal requirements. This is especially so given that little change is being made from the September proposal. Programs will also have received adequate time to conform their program to these requirements. Limitation of this provision to such earlier training will also help to ensure that all approved programs meet common requirements, increasing the consistency of test administration in approved programs. For more discussion of the relationship between state and Federal requirements, see section III.G.

Since the publication of the proposed rule, the Agency has received other technician certification program applications and these will be reviewed as quickly as possible upon receipt of complete application materials. To facilitate EPA review, each program requesting review should supply information illustrating how each element of the certification criteria in § 82.40 is met. This includes test questions, test administration and training information such as videos or self-study booklets. The Agency encourages submission of applications for approval from training certification programs and will make every effort to review programs quickly. EPA will maintain a list of all approved programs including both national testing programs and any individual company programs that are approved.

*E. Small Container Restrictions*

The Act makes it unlawful, effective November 15, 1992, for any person to sell or distribute, or offer for sale or distribution, any class I or class II substance suitable for use as a refrigerant in motor vehicle air conditioning systems in a container with less than 20 pounds of refrigerant except to certified technicians servicing motor vehicles for consideration. The Agency proposed an implementation approach distinguishing between purchasing refrigerant in small containers for use and purchasing refrigerant in small containers for the purpose of resale only. For resale, the Agency proposed that sellers obtain a signed statement from purchasers stating that the small containers are for resale only. At retail sales outlets, the Agency proposed that sellers review the technician certification and keep a record of the technician's name, technician certification number and program name, date of sale and the quantity (number and size) of containers purchased. The proposal also stated that outlets selling small containers must display a sign stating that it is unlawful to sell small containers to an individual who is not a properly trained and certified technician.

Six commenters believed the continued existence of small containers allowed too great a potential for "do-it-yourselfer" access to refrigerant and that therefore the containers should be eliminated. Three commenters stated that the availability of small containers of CFC–12 increases the likelihood that the refrigerant supply will be contaminated because HCFC–22 and HFC–134a are also available in small containers. One commenter mentioned that if sales to retail outlets were eliminated, the effectiveness of recycling efforts would be increased. Five commenters believed the sales restriction should be expanded to all size containers.

EPA does not have authority under section 609 of the Act to ban or otherwise eliminate all small containers. The regulatory language in subpart B is designed to implement a specific statutory provision concerning small containers. That provision does not ban, but only limits the sale of such small containers. The Agency, however, is concerned about the potential problems that the continued availability of small containers of refrigerants could cause, as suggested in the comments. Mixing refrigerants may lead to air conditioning systems failures and may also subsequently contaminate recycle and recover equipment. The Agency is also aware that do-it-yourselfers may lawfully purchase containers with over 20 pounds of refrigerant. EPA will review this situation after gaining some experience with the operation of today's rule. It is important to note that several states have completely banned the sale of small containers.

The Agency received one comment supporting the requirement that a sign be posted at the point of refrigerant sale for its educational and deterrence value. One comment stated that the requirement was redundant because the small containers would not be available to the general public, and one comment suggested that a label on the container was more appropriate than a sign. The Agency wishes to clarify that the intent of the retail sign is to alert the public to the sales restriction under section 609 of the Act. Labeling requirements alerting consumers to products containing or made with class I and class II substances are being developed under section 611 of the Act and will not be redundant with the section 609 sales restrictions. For these reasons, EPA has determined to keep the requirement for a retail sign. EPA has clarified the regulation to state that the sign must be located where the sales occur.

[12] To avoid confusion, it is important to note that although this provision is made in response to comments concerning state approved programs, the revision to the Test Administration criteria is not limited to such programs.

Several commenters addressed the proposed recordkeeping requirements. The Automative Refrigerant Products Institute (ARPI) suggested that, at the wholesale level, purchasers be permitted to offer a one-time signed statement stating that cans are intended for retail sale in situations where sellers and purchasers have several transactions over time. The seller would keep the statement on file. The Agency agrees that this would be an efficient implementation method. No changes have been made to the regulations, however, because such actions would be allowed under the regulations as written.

ARPI also suggested that equipment registration certifications, instead of technician certifications, be used in recordkeeping for small container purchases. Although service establishments must submit information to the Agency concerning the type of equipment they have purchased, the Agency will not send back a verified proof of equipment purchase. As a result, there is no equipment registration certification that could be used for recordkeeping as ARPI suggested. Proof of certification will be provided by the technician certification programs and therefore, other than the purchase for resale, certified technicians are the only individuals permitted to purchase small containers.

Two commenters stated that retail purchasers should be required to simply present valid proof of certification at the time of purchase, with no additional recordkeeping required at the retail level. Upon further consideration, the Agency agrees that the recordkeeping requirements are not essential to determine compliance and develop effective enforcement actions. For example, if necessary, EPA may review the normal records maintained by a business when circumstances lead EPA to believe a violation may have occurred. EPA has therefore deleted the recordkeeping for retail purchase from the final requirements published today.

The Agency received several comments on the residual amount of CFC-12 remaining in cans after use, the standard of purity used by small container manufacturers, and the dispensing mechanism of the containers themselves. The Agency continues to be concerned about this aspect of the use of small containers and will further consider these comments when developing lowest achievable emission levels under section 608 of the Act.

*F. Equipment Certification and Small Entity Certification*

1. Certification Dates

As noted earlier, the statute requires that, after January 1, 1992, no person repairing or servicing a motor vehicle for consideration may perform any service on a motor vehicle air conditioner involving the refrigerant unless they properly use approved equipment. In addition, the repair or service personnel must have been properly trained and certified for such work. The statute grants a one year extension to small service establishments—establishments that performed less than 100 service jobs involving refrigerant in the year 1990. This one year extension is only available if the small service establishment certifies to the Administrator on or before January 1, 1992 that they meet the requirements for this extension.

All persons performing service on motor vehicle air conditioners for consideration, notwithstanding the size of the establishment, must certify to the Administrator on or before January 1, 1993 that they have purchased approved equipment and that authorized service personnel have been properly trained and certified.

One commenter expressed concern that the one year delay between the requirement to use approved equipment for servicing (except small shops) and the requirement to certify the purchase and use of such equipment could result in reduced compliance. The commenter recognized that the difference in dates stems from section 609(c) and 609(d), and suggested that EPA increase compliance through education and enforcement.

EPA would like to encourage establishments to certify that they own equipment before January 1, 1993. The Agency applauds the efforts of the hundreds of service entities that have already submitted their equipment registrations to the Agency. The Agency has also received hundreds of the small establishment certifications. Once the certifications are filed with the Agency, the small establishments have until January 1, 1993 to purchase equipment. As discussed in section V. on effective dates, EPA enforcement actions may be taken as of the effective date of this regulation.

Several commenters were concerned that the small entity extension is too easy to obtain. Two commenters suggested that the small establishments be required to submit substantially more information than proposed on the motor vehicle air conditioner service jobs they performed in 1990, such as vehicle make, model, engine size and CFC charge remaining, before they are granted an extension. The Agency believes that the intent of Congress in including this specific small establishment extension was to reduce the regulatory burden on small entities. Requiring small entities to supply substantially more information could significantly reduce the relief Congress sought to provide. Moreover, the additional information that commenters suggested EPA collect would not provide significantly greater assurance that the numbers of service jobs reported by small entities was accurate. The Agency will therefore not require the suggested service record submittal for small entities. However, the Agency may examine an establishment's records supporting its certification that it performed less than 100 service jobs in 1990. If warranted, appropriate enforcement action may be taken.

In additional comments received after the end of the comment period, the State of Oregon requested that EPA consider exempting very small service establishments from all requirements. They classify the very small establishments as those performing under 20 jobs involving refrigerant per year. Oregon is considering establishing this exemption in its own program based on several factors; the state's belief that small service establishments will not voluntarily undertake recycling because of the high cost of the equipment and the fact that the small number of service jobs the shop performs will make it difficult for them to make a return on their investment. The amount of refrigerant released by these shops would be small and Oregon suggests that the compliance rates for these shops will be low if an exclusion is not granted.

Congress clearly recognized that small service establishments merited special consideration and included the one year extension for the equipment requirements. By implication, Congress also considered that no further relief was necessary or appropriate. The Agency, moreover, does not believe the establishment of any "de minimis" number of service jobs is warranted. The Agency recognizes that small service establishments may determine that the small number of jobs involving refrigerant that they perform do not justify continuing to perform service and purchasing the equipment. They may choose to decline this type of work or arrange to have the refrigerant removed from the motor vehicle air conditioner at a service location that does have the appropriate equipment before they

perform service. The small establishment may also consider the purchase of recover only equipment, which is typically less expensive than recover/recycle equipment. The sale of any recovered refrigerant to a reclamation facility will also help the entity recoup the cost of the investment. The Agency also wishes to highlight the fact that a significant amount of recover/recycle equipment was sold before enactment of the Act on the basis of the industry voluntary program. Although most of the equipment was purchased by larger service establishments such as dealerships, the estimates of the equipment sold indicate that some smaller service establishments also purchased equipment voluntarily. The Agency believes the flexible nature of this final regulation and the inclusion of the one year extension for small service establishments provide for appropriate relief for these entities and no further measures are necessary.

2. Example Form

In the proposed rule, EPA included an example form to illustrate the type of information necessary to certify equipment to the Agency. Equipment owners are not required to use the form to certify; it is provided as an example only. One commenter questioned whether the proposed example form can be used to certify recover only equipment to the Agency. To clarify that the example form may be used for either type of equipment, the form has been revised to include the words "or recover" wherever the form states recover/recycle equipment. It should be noted, however, that EPA has not yet finalized the standards for approval of recover only equipment. Until that time, the only equipment officially approved by EPA is recover/recycle equipment certified to meet the standards of appendix A. The only other change to the example form provided in the proposal is the replacement of the acronym "MACs" with the more accurate "MVAC" for motor vehicle air conditioner. One commenter mentioned that MACs could be confused with the name of the Mobile Air Conditioning Society (MACS). The revised form appears as Example A in today's notice. Any certifications received using the proposed form are acceptable because, as stated in the proposal, the form is intended for guidance and the Agency does not require establishments to report in this format. The data elements for reporting remain the same as the proposal: the serial number of each unit of equipment, the name of the purchaser of equipment and the address of the establishment where the equipment will be located, the manufacturer name, model number, date of manufacture, and a signed statement that each individual authorized to perform service using the equipment is properly trained and certified and that the equipment will be properly used in servicing motor vehicle air conditioners.

Small establishments may also use the example form to certify that they performed less than 100 service jobs involving refrigerant in 1990. All certifications, both equipment and small entity, should be sent to the following address: MVACs Recycling Program Manager, Stratospheric Ozone Protection Branch (6202–J), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460.

*G. Relationship to State Regulations*

In the proposed notice, the Agency stated that the Act does not provide for Federal preemption of state requirements. The rule published here today represents the Federal requirements applicable to the servicing of motor vehicle air conditioners, and states or localities may establish programs with different requirements to the extent otherwise consistent with the United States Constitution. EPA is aware of several states with their own programs, e.g. Florida and Oregon, and in most cases the programs contain requirements that mirror the Federal program. The Agency would like to clarify that compliance with a state or local program may not in and of itself constitute compliance with the Federal standards. For example, regardless of state registration or permitting requirements, the service establishments must certify their equipment with EPA (see section III.F.). Conversely, service entities and technicians in states or localities with regulations that are effective in advance of the Federal program must comply with these earlier requirements in their state and locality.

Regarding technician certification, as stated in section III.D., in cases where the state or locality has approved programs, the Agency will work with the state or locality to minimize the burden of obtaining approval for these programs. The Agency encourages any programs that have been approved by a state or locality to submit those program for Federal approval. The Agency is aware that in many cases the programs approved at the Federal level may also be approved by the state or locality and, therefore, no conflict would exist.

The Agency is aware that some states have also performed "substantially identical equipment" reviews for equipment. Equipment in those states also must be reviewed for applicability with the Federal requirements and EPA will work with the states to determine if their review criteria were appropriate.

Eight commenters highlighted the importance of coordinated state and Federal activity and the Agency will work with states to coordinate and streamline the enforcement activities in states where programs exist.

One commenter asked whether the State of Oregon's inclusion of wrecking yards in their recycling program would be superseded by the Federal requirements. Although the regulations published today do not include removal of CFCs from automobiles at disposal, the Agency intends to include requirements under the Safe Disposal Program within section 608 of the Act. The Federal regulations promulgated today do not preempt Oregon's requirements and, in fact, supports the state's efforts to develop a program. Leak detection efforts by the states of Wisconsin and Florida are other examples of requirements that EPA's program do not preempt.

*H. Recordkeeping Requirements*

1. Certification

The proposed certification requirements were intended to establish records to assist EPA in its compliance and enforcement activities. Section 609(d) of the Act requires that persons performing service on motor vehicle air conditioners certify to the Agency that they have acquired and are properly using approved equipment. The Agency proposed that this certification include name and address of the establishment, the name of the manufacturer, the equipment model number, manufacturer date, and serial number. The proposed certificate also included a statement concerning the proper use of the equipment, and that authorized service personnel were properly trained and certified. Small service establishments must certify to the Agency that they did under 100 service jobs involving refrigerant in 1990 if they wish to qualify for the one year extension described in section III.F.

The Agency would like to clarify that the Agency will not issue permits or licenses to service establishments upon receipt of the equipment certification. Several commenters mistakenly suggested that permits or EPA certifications be used for the small container sales restrictions discussed in section III.E. As required in the Act, the small container sales restriction is based on the technician certification requirements. Service establishments

that wish to verify EPA's receipt of their certification may send the certification by certified mail. They may also wish to retain a copy.

2. Recordkeeping

In the proposal, EPA attempted to develop requirements similar, in most cases, to the typical invoice or purchasing records maintained by a service entity. The Agency proposed that invoices kept upon service of motor vehicle air conditioners include the fact that service was performed, the name, address, and phone number of the vehicle owners, and the year, make, model and license plate numbers of the vehicles serviced, date of service, and the odometer reading of the vehicle. Owners of approved equipment would retain records of the amount of refrigerant purchased and consumed each month and they retain records demonstrating that all persons authorized to use the approved equipment are properly certified. The Agency also proposed that owners of approved recover only equipment maintain records of the refrigerant sent to off-site reclaimers or recycled on-site.

For the small container sales restriction, the Agency proposed that purchasers attest in writing that they are properly trained and certified. This writing would include the name of the purchaser, their technician certification number, the date of sale, and the quantity of cans purchased. Under the proposal, the only exception to the requirement that purchasers of small containers be trained and certified is if the purchaser is purchasing the small containers for resale only and signs a statement to that effect.

Several industry commenters noted that the proposed recordkeeping requirements were written for the consumer vehicle repair industry and do not consider several specific circumstances. Examples include service on fleet vehicles and farm or construction equipment where license plates, vehicle owner, or routine invoice procedures do not exist. As stated above, the Agency intended the proposed requirements to be as similar as possible to the types of recordkeeping already being maintained for accounting purposes to minimize the burden of this regulation. The Agency acknowledges that the proposed requirements do not reflect all the servicing situations that may occur nationally.

Two commenters believed that the recordkeeping requirements were unnecessarily burdensome on small businesses that do not have the resources to create or complete new forms. One commenter specifically questioned whether the reconciliation of purchases and estimation of the volumes of recycled refrigerant was possible considering the various amounts of refrigerant that motor vehicle air conditioners may contain when they are serviced. The Agency's proposal included a provision requiring the maintenance of records on the amount of refrigerant purchased and consumed each month in order to allow the Agency to make a determination if refrigerant was actually being recycled. The Agency agrees with the commenter that this recordkeeping requirement will not necessarily aid in determining whether recycling actually occurred. This determination would be difficult to make because the Agency could only compare the records to statistics for the average amount of refrigerant remaining in motor vehicle air conditioners at service. The amount of refrigerant actually found in a particular system, however, is dependent upon the type of repair that must be made, for example automobiles involved in front-end accidents may well have lost their entire charge, while the amount of refrigerant lost during normal use will vary between manufacturers and models of motor vehicles. The requirement that service establishments keep invoices of service performed and record their purchases and consumption of refrigerant, therefore, has been deleted in today's final rule.

Several commenters addressed the tracking of off-site shipments to reclamation facilities, with some commenters suggesting more detailed tracking and others suggesting that all records of off-site shipments or on-site recycling were unnecessary. The Agency has determined that service establishments using recover only equipment should be required to keep records of where refrigerant is sent for reclamation. Shops using recover only equipment that will have the refrigerant recycled by the owner must keep the name and address of the owner on-site. The Agency has decided it would not require in this regulation that service entities keep records of amounts of refrigerant sent and dates the shipments have been made. The Agency would like to clarify that service establishments using recover equipment need not retain records of the amount of refrigerant recycled on-site, only the address of the off-site reclamation facility they are currently doing business with. Additional recordkeeping requirements proposed by EPA have been deleted as unnecessary. The records required by these regulations must be maintained on-site for three years for spot checks upon inspection. The records should not be submitted to the Agency.

As discussed in section III.E, the small container recordkeeping requirements will not remain the same as proposed. Sellers of small containers of refrigerant must review the technician certification of anyone purchasing small containers, however they are not required to maintain records of the technician name, technician certification program, technician certification number, the date of sale and the number of containers purchased. The only exception to this is if the purchaser is purchasing the cans for resale, then he must so certify to the seller in writing.

## IV. Summary of Today's Final Rule

This section briefly describes the provisions of today's final rule. Any changes made to the rule language as a result of the public comments are described. Various changes to the final rule that have been made for purposes of clarification are not described herein.

### *A. Authority*

The authority citation has been revised to reflect the most recent authority citation adopted by EPA for part 82.

### *B. Purpose and Scope (Section 82.30)*

This section states that these rules implement section 609 of the Act and apply to persons performing service for consideration on motor vehicle air conditioners. There were no changes to this section based on public comment. Minor editing changes were made for clarification.

### *C. Definitions (Section 82.32)*

This section contains the definition of the terms "approved independent standards testing organization", "approved refrigerant recycling equipment", "motor vehicle", "motor vehicle air conditioners", "properly using", "refrigerant", "service for consideration", and "service involving refrigerant".

The definitions for approved equipment and standards testing organization reference the sections of the rule (§ 82.36 and § 82.38) described below. The motor vehicle definition was limited to this subpart and the definition was changed to include those vehicles meeting the definition of motor vehicle used for purposes of title II of the Act. Also, the definition was clarified to specify motor vehicles where final assembly has been completed by the original equipment manufacturer. Motor vehicle air conditioner defines the type of systems covered by this regulation

and this definition was clarified to exclude buses using HCFC–22 refrigerant. The definition of refrigerant was clarified by including the language in the Act that states that effective November 15, 1995, refrigerant shall include any substitutes for class I or class II substance. Service involving refrigerant defines the activities regulated. The service for consideration definition is intended to exclude "do-it-yourselfers" from the requirements of the regulation.

The term "properly using" sets out the requirements for use of approved equipment. It states that technicians must follow the SAE J standard J1989 when operating equipment, as found in appendix A. For recover/recycle equipment, properly using includes recycling the refrigerant before reuse. For recover only equipment, properly using includes sending the refrigerant recovered to a reclamation facility or recycling it on-site if recycle equipment is available. Any refrigerant from reclamation facilities used for the purpose of recharging motor vehicle air conditioners must be at or above the ARI 700–88 standard of purity. The definition also states that intentional venting of refrigerant is an improper use of equipment.

The only change to the properly using definition is the addition of a provision allowing the owner of a piece of recover only equipment to transfer the refrigerant off-site and recycle it using a piece of recover/recycle equipment owned by the same person.

*D. Prohibitions (Section 82.34)*

There are three prohibitions in this final rule. The first requires that by January 1, 1992, persons performing service for consideration on motor vehicle air conditioners must properly use approved equipment. These persons must be trained and certified. The requirements of this prohibition do not apply until January 1, 1993, for service establishments that performed under 100 service jobs involving refrigerant in 1990, and so certify to EPA.

The second prohibition states that effective November 15, 1992, no person may sell or distribute any class I or class II substance in a container with less than 20 pounds of refrigerant that is suitable for use as a refrigerant in a motor vehicle air conditioner to any person unless that person is properly trained and certified, or certifies to the seller that the containers are intended for resale only.

The final prohibition states that no technician training program may issue certificates unless that program complies with all the standards in § 82.40. The three prohibitions remain as originally proposed, except for clarifying language changes.

*E. Approved Refrigerant Recycling Equipment (Section 82.36)*

This section describes the two types of equipment that meet the definition of approved equipment for use in servicing motor vehicle air conditioners. The first type of equipment recovers CFC–12 and recycles it on-site to the SAE standard J1991. The standards for certification of this type of equipment appear in appendix A.

The second type of equipment only recovers refrigerant. As stated in the properly using definition, the recovered refrigerant must be sent to a reclamation facility or recycled on-site. The standard for this equipment was proposed as Appendix B on April 22, 1992. The appendix will be finalized upon completion of the analysis of the public comments. In finalizing the standards for recover only equipment, appendix B, the Agency intends to also amend § 82.36 (a) and (b) to include references to appendix B.

This section also contains provisions allowing the Agency to determine if equipment is substantially identical to certified equipment. Equipment manufacturers or owners may submit applications for approval which contain information on the equipment that indicates its capability to meet the standards in appendix A. EPA anticipates that a substantially identical determination will apply to appendix B. That issue, however, will be addressed when EPA promulgates the final appendix B standards. The Agency will maintain a list of approved equipment. This list is available to the public.

*F. Approved Independent Standards Testing Organizations (Section 82.38)*

This section establishes the criteria for approval of testing laboratories or organizations for equipment. Organizations must demonstrate that they have the experience and the appropriate equipment to perform testing. Various changes to this section between the proposed notice and today's final regulation were made for purposes of clarification. In finalizing the standards for recover only equipment, appendix B, the Agency intends to also amend § 82.38 (a) and (b) to include references to appendix B.

*G. Technician Training and Certification (Section 82.40)*

This section establishes the standards for programs approved to train and certify technicians. The standards cover training, the subject material that must be covered by each program, and minimum test administration procedures. Summaries of reviews of programs must be submitted every two years and programs must offer technicians proof of certification upon successful completion of the test. Recertification of technicians is not required at this time.

One change to this section is clarification of the term independent testing authority to state "Completed tests must be graded by an entity or individual who receives no benefit from the outcome of testing; a fee may be charged for grading." This is not a substantive change in the requirements. Another change involves approval of organizations that meet all criteria except for the Test Administration criteria, if the program, when viewed as a whole, is as effective as a program that does meet all of these criteria. In finalizing the standards for recover only equipment, appendix B, the Agency intends to also amend § 82.40(a) to include references to appendix B.

The Administrator reserves the right to revoke approval if a program violates any of the requirements and inspectors may revoke a technician's certification if the technician is unable to properly use equipment upon inspection.

*H. Certification and Recordkeeping Requirements*

This section states that no later than January 1, 1993, establishments repairing or servicing motor vehicle air conditioners for consideration must certify to the Agency that they have acquired and are properly using approved equipment. The data elements required for certification include the name of the purchaser of the equipment, the address of the service establishment, the name of the manufacturer, the model number of equipment, the date of manufacture and serial number. The owner of the equipment or another responsible officer must sign the certification stating that equipment will be properly used by certified technicians. The certification must be sent to: MVACs Recycling Program Manager, Stratospheric Ozone Protection Branch (6202–J), U.S. Environmental Protection Agency, 401 M Ss)treet, SW., Washington, DC 20460.

The address is the same as proposed except the MACs acronym has been replaced with the more accurate MVAC acronym for motor vehicle air conditioners. Other clarifications have also been made. These are not substantive changes.

Service establishments that performed fewer than 100 service jobs involving

refrigerant in 1990 may qualify for a one year extension by submitting a small establishment certification by January 1, 1992. This submittal must contain the name and address of the service establishment and a signed statement that the establishment performed under 100 service jobs in 1990. The statement must be sent to the address shown above. Establishments must retain records to verify this, however those records should not be submitted to the Agency. The example form provided in the preamble may be used for both the equipment and small establishment certification, although use of the form is not required.

Recordkeeping requirements at the service establishment have been changed. The establishment need not retain invoices of motor vehicle air conditioner service. The requirement in the proposed rule to record the amount of refrigerant recycled on-site (if recover only equipment is used and the refrigerant is not sent to a reclamation facility) has been deleted. The proposed requirement that service establishments retain records of the amount of refrigerant purchased and consumed each month has also been deleted in today's final rule. The service establishments must retain records demonstrating that technicians authorized to use the equipment are certified and must maintain records identifying the reclamation facility that refrigerant is sent to.

The recordkeeping requirements for sales of containers of less than 20 pounds of refrigerant have been deleted. The only exception to this requirement is if the purchaser is purchasing the small containers for resale. In that case, the seller must receive a written statement from the purchaser that the cans are for resale only. In all other cases, the seller must verify that the purchaser is properly trained and certified, and must have a reasonable basis to believe the information presented by the purchaser is accurate. Finally, a sign must be displayed at the point of sale of small containers stating that it is a violation of federal law to sell containers of class I and class II refrigerant in containers of less than 20 pounds to anyone who is not properly trained and certified.

All records under this section must be retained for three years. EPA authorized representatives must be allowed access to records upon inspection.

*I. Appendix A and Appendix B*

Appendix A contains the three SAE standards used to certify recover/recycle equipment. The SAE standard J1990 (Extraction and Recycle Equipment for Mobile Automotive Air Conditioning Systems) has been revised by SAE and the revised version is incorporated into today's final rule. As discussed in section III.B.1, SAE J1990 (1991) includes minor changes from SAE J1990 (1989).

Appendix B was proposed on April 22, 1992. The appendix will be finalized after the completion of the public comment period.

## V. Effective Date

The effective date for today's rule is August 13, 1992. Section 82.34 of these regulations requires that after this date, no person repairing or servicing a motor vehicle for consideration may perform any service on a motor vehicle air conditioner involving the refrigerant unless they properly use equipment approved pursuant to § 82.36 of these regulations. Any such repair or service personnel must have been properly trained and certified under § 82.40 of the regulations.

The effective date of these rules does not, however, limit the lawful effect of various statutory prohibitions in section 609 of the Act. These statutory prohibitions are not dependent on EPA rulemaking. For example, section 609(c) states that "[e]ffective January 1, 1992, no person repairing or servicing motor vehicles for consideration may perform any service on a motor vehicle air conditioner involving the refrigerant for such air conditioner without properly using approved refrigerant recycling equipment and no such person may perform such service unless such person has been properly trained and certified." Section 609(c) also conditions the one year extension for small volume establishments on the filing of a certificate with the Administrator on or before January 1, 1992.

The Agency received several comments requesting a "grace period" to allow enough time to purchase equipment and certify technicians. EPA is aware that it may have been impossible in practice for persons to fully comply with the section 690(c) requirements, given that this final rule was not promulgated until after January 1, 1992. The Agency is also aware that numerous establishments purchased refrigerant recycling equipment in anticipation of these regulations, and had their technicians trained and certified. EPA has already received many equipment certificates as well as small volume establishment certificates. This program was developed in the context of a pre-existing voluntary recycling program that involved several industries, trade associations, and numerous business entities across the nation. In addition, Congress apparently envisioned a maximum of 45 days between promulgation of the regulation (November 15, 1991) and the effective date of the statutory prohibition (January 1, 1992). The Agency will consider all of these factors when deciding whether to commence an enforcement action for violations of section 690(c) that occurred after January 1, 1992, but before the effective date of this rule.

## VI. Summary of Supporting Analyses

*A. Regulatory Impact Analysis*

Executive Order No. 12291 requires the preparation of a regulatory impact analysis for major rules, defined by the order as those likely to result in:

(1) An annual effect on the economy of $100 million or more;

(2) A major increase in costs or prices for consumers, individual industries, Federal, state or local government agencies, or geographic industries; or

(3) Significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of the United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

The Agency has determined that this regulation does not meet the definition of a major rule under E.O. 12291. However, the Agency has prepared an analysis to assess the impact of the regulation (see Costs and Benefits of MACs Recycling, May 24, 1991) which is available for review in the public docket for this rulemaking.

The Clean Air Act requires the EPA to promulgate regulations to phase out the production of ozone depleting substances by the year 2000 (2002 for methyl chloroform). EPA prepared a Regulatory Impact Analysis (RIA) under the requirements of E.O. 12291 to analyze the costs and benefits of the phaseout (see Regulatory Impact Analysis: Compliance with the Clean Air Act Provisions for the Protection of Stratospheric Ozone, December 21, 1990). A key result of this analysis is that with the imposition of the phase out of production coupled with an excise tax of CFCs (see Omnibus Trade Reconciliation Act, 1989), CFC–12 recycling would be fully implemented by service establishments by the year 1992 even without a specific regulatory requirement to do so. As a result, the overwhelming majority of costs of this regulation on CFC–12 recycling at service of motor vehicle air conditioners (e.g. capital cost of recycling equipment and annual operating costs) have

already been attributed to the CFC phaseout and have been included in the Phaseout RIA. The Phaseout RIA does not, however, include the costs of motor vehicle air conditioner service technician certification as required under the Act. The total cost of this requirement is determined to be approximately $14.9 million, well under the $100 million cost threshold for a major rule. The Costs and Benefits of MAC Recycling provides some general costs and benefits that could be attributed to motor vehicle air conditioner recycling, however, these costs are not incremental to the costs of the phaseout.

One commenter asserted that the regulatory requirements will result in an annual effect on the economy of $100 million or more. The Agency reiterates that the $100 million figure is intended to address incremental costs as a result of regulation, and as stated above the majority of the costs for this rulemaking have already been determined as part of the phase-out of ozone depleting substances. Attributing the cost of equipment purchase to this regulation would result in double counting of costs.

The State of Oregon questioned the assumption within the phase-out RIA that service establishments would implement recycling absent a specific requirement to do so. At the time the phase-out RIA was developed, the Agency believed that service establishments would undertake recycling for both economic and non-economic reasons. Non-economic reasons could include customers' environmental concerns or development of industry service norms that include recycling (a result of the voluntary program). These assumptions have been verified to some extent by the fact that over 50,000 pieces of recover/recycle equipment were sold prior to the end of 1990.

*B. Regulatory Flexibility Analysis*

1. Purpose

The Regulatory Flexibility Act, 5 U.S.C. 601–612, requires that Federal agencies examine the impacts of their regulations on small entities. Under 5 U.S.C. 604(a), whenever an agency is required to publish a general notice of proposed rulemaking, it must prepare and make available for public comment an initial regulatory flexibility analysis (RFA). Such an analysis is not required if the head of an agency certifies that a rule will not have a significant economic impact on a substantial number of small entities, pursuant to 5 U.S.C. 605(b).

The Agency has performed an initial regulatory flexibility analysis and determined that while this regulation affects a substantial number of small businesses, it does not impact a substantial number significantly. The analysis is found in appendix A in the Costs and Benefits of MAC Recycling and is available for review in the docket. The methodology and results of the analysis are presented below.

2. Methodology and Results

To examine the impacts on small businesses, EPA first characterized the regulated community by identifying the SIC codes that would be involved in the servicing and repair of motor vehicle air conditioners. After determining the number of these entities that are classified as small by the Small Business Act (SBA), the Agency performed impact tests using sales, profits and cash flow measures. The analysis included least expensive and most expensive private cost scenarios for compliance that were developed for the Costs and Benefits of MAC Recycling. The least expensive cost scenario assumed recover only equipment is purchased at a price of $1000 while the more expensive option assumes $3000 recycle equipment is acquired. The analysis also takes the cost of filter changes, sending refrigerant out for reclamation, labor, and cost savings from using recycled refrigerant into account.

The State of Oregon questioned the Agency's determination that 90 percent of establishments that perform service are small businesses and suggested that 50 percent is a more reasonable figure. Oregon offered no justification for the 50 percent figure, however and the Agency maintains that the original analysis, which closely followed the Small Business Administration guidelines for determination of small business when performing regulatory flexibility analysis, is accurate.

The analysis indicates that the number of small establishments impacted by the regulation ranges from 18 percent if the least expensive compliance option, purchasing equipment that recovers refrigerant for off-site reclamation, is chosen to 32 percent if the most expensive compliance option is chosen. The Agency believes that most small establishments will choose the least cost option. This analysis did not reflect the fact that over 50,000 machines have already been sold based on the voluntary program developed by industry. The establishments that have purchased these machines will only have the incremental regulatory burden of technician certification. In addition, Congress has already established some flexibility for small establishments, defined as those entities that performed under 100 motor vehicle service jobs in 1990, by providing a one year extension on the requirement to purchase equipment.

The Agency believes that the one year extension, the fact that some entities have already purchased equipment, and the existence of the lease cost option of purchasing recover only equipment will result in less than 18 percent of small establishments being significantly impacted by this regulation. The Agency frequently defines a "significant number" of small entities as approximately 20 percent or more of small establishments. As a result, the Agency certifies that this regulation will not have an impact on a significant number of small entities, pursuant to 5 U.S.C. 605(b).

*C. Paperwork Reduction Act*

The information collection requirements in this final rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* An Informational Collection Request document has been prepared by EPA (ICR No. 1432.07) and a copy may be obtained by writing to the Information Policy Branch (PM–223y), U.S.EPA, 401 M Street SW., Washington, DC 20460 or by calling (202) 260–2740.

Send comments on the information collection requirements to Chief, Information Policy Branch, PM–223, U.S. EPA, 401 M Street, SW., Washington, DC 20460 and to the Office of Information and Regulatory Affairs, Paperwork Reduction Project [2060–0170], Office of Management and Budget, Washington, DC 20503, marked "Attention: Desk Officer for EPA."

**List of Subjects in 40 CFR Part 82**

Chlorofluorocarbons, Clean Air Act Amendments of 1990, Motor vehicle air conditioning, Reporting and recordkeeping requirements, Reporting and certification requirements, Stratospheric ozone layer.

Dated: June 29, 1992.

**William K. Reilly,**

*Administrator.*

For the reasons set out in the preamble, EPA is hereby amending 40 CFR part 82 as follows:

## PART 82—PROTECTION OF STRATOSPHERIC OZONE

1. Authority: The authority citation for part 82 is revised to read as follows:

Authority: 42 U.S.C. 7414, 7601, 7671–7671q.

2. Part 82 is amended by designating the existing sections and appendices as subpart A and by adding a new subpart B to read as follows:

**Subpart A—Production and Consumption Controls**

* * * * *

**Subpart B—Servicing of Motor Vehicle Air Conditioners**

Sec.



**§ 82.30 Purpose and scope.**

(a) The purpose of these regulations is to implement section 609 of the Clean Air Act, as amended (Act) regarding the servicing of motor vehicle air conditioners.

(b) These regulations apply to any person performing service on a motor vehicle for consideration when this service involves the refrigerant in the motor vehicle air conditioner.

**§ 82.32 Definitions.**

(a) *Approved Independent Standards Testing Organization* means any organization which has applied for and received approval from the Administrator pursuant to § 82.38.

(b) *Approved Refrigerant Recycling Equipment* means equipment certified by the Administrator or an organization approved under § 82.38 as meeting either one of the standards in § 82.36. Such equipment extracts and recycles refrigerant or extracts refrigerant for recycling on-site or reclamation off-site.

(c) *Motor vehicle* as used in this subpart means any vehicle which is self-propelled and designed for transporting persons or property on a street or highway, including but not limited to passenger cars, light duty vehicles, and heavy duty vehicles. This definition does not include a vehicle where final assembly of the vehicle has not been completed by the original equipment manufacturer.

(d) *Motor vehicle air conditioners* means mechanical vapor compression refrigeration equipment used to cool the driver's or passenger's compartment of any motor vehicle. This definition is not intended to encompass the hermetically sealed refrigeration systems used on motor vehicles for refrigerated cargo and the air conditioning systems on passenger buses using HCFC–22 refrigerant.

(e) *Properly using* means using equipment in conformity with Recommended Service Procedure for the Containment of R–12 (CFC–12) set forth in appendix A to this subpart. In addition, this term includes operating the equipment in accordance with the manufacturer's guide to operation and maintenance and using the equipment only for the controlled substance for which the machine is designed. For equipment that extracts and recycles refrigerant, properly using also means to recycle refrigerant before it is returned to a motor vehicle air conditioner. For equipment that only recovers refrigerant, properly using includes the requirement to recycle the refrigerant on-site or send the refrigerant off-site for reclamation. Refrigerant from reclamation facilities that is used for the purpose of recharging motor vehicle air conditioners must be at or above the standard of purity developed by the Air-conditioning and Refrigeration Institute (ARI 700–88) (available at 4301 North Fairfax Drive, Suite 425, Arlington, Virginia 22203) in effect as of November 15, 1990. Refrigerant may be recycled off-site only if the refrigerant is extracted using recover only equipment, and is subsequently recycled off-site by equipment owned by the person that owns both the recover only equipment and owns or operates the establishment at which the refrigerant was extracted. In any event, approved equipment must be used to extract refrigerant prior to performing any service during which discharge of refrigerant from the motor vehicle air conditioner can reasonably be expected. Intentionally venting or disposing of refrigerant to the atmosphere is an improper use of equipment.

(f) *Refrigerant* means any class I or class II substance used in a motor vehicle air conditioner. Class I and class II substances are listed in part 82, subpart A, appendix A. Effective November 15, 1995, refrigerant shall also include any substitute substance.

(g) *Service for consideration* means being paid to perform service, whether it is in cash, credit, goods, or services. This includes all service except that done for free.

(h) *Service involving refrigerant* means any service during which discharge or release of refrigerant from the motor vehicle air conditioner to the atmosphere can reasonably be expected to occur.

**§ 82.34 Prohibitions.**

(a) Effective August 13, 1992, no person repairing or servicing motor vehicles for consideration may perform any service on a motor vehicle air conditioner involving the refrigerant for such air conditioner

(1) Without properly using equipment approved pursuant to § 82.36; and

(2) Unless such person has been properly trained and certified by a technician certification program approved by the Administrator pursuant to § 82.40.

The requirements of this paragraph do not apply until January 1, 1993 for small entities who certify to the Administrator in accordance with § 82.42(a)(2).

(b) Effective November 15, 1992, no person may sell or distribute, or offer for sale or distribution, any class I or class II substance that is suitable for use as a refrigerant in motor vehicle air-conditioner and that is in a container which contains less than 20 pounds of such refrigerant to any person unless that person is properly trained and certified under § 82.40 or intended the containers for resale only, and so certifies to the seller under § 82.42(b)(4).

(c) No technician training programs may issue certificates unless the program complies with all of the standards in § 82.40(a).

**§ 82.36 Approved refrigerant recycling equipment.**

(a)(1) Refrigerant recycling equipment must be certified by the Administrator or an independent standards testing organization approved by the Administrator under § 82.38 to meet the following standard:

(2) Equipment that recovers and recycles refrigerant must meet the standards set forth in appendix A to this subpart (Recommended Service Procedure for the Containment of R–12, Extraction and Recycle Equipment for Mobile Automotive Air-Conditioning Systems, and Standard of Purity for Use in Mobile Air Conditioning Systems).

(b) Refrigerant recycling equipment purchased before September 4, 1991 that has not been certified under paragraph (a) of this section shall be considered approved if the equipment is substantially identical to equipment certified under paragraph (a) of this section. Equipment manufacturers or owners may request a determination by the Administrator by submitting an application and supporting documents which indicate that the equipment is substantially identical to approved equipment to: MVACs Recycling Program Manager, Stratospheric Ozone Protection Branch (6202–J), U.S.

Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460, Attn. Substantially Identical Equipment Review.

Supporting documents must include process flow sheets, lists of components and any other information which would indicate that the equipment is capable of cleaning the refrigerant to the standards in appendix A. Authorized representatives of the Administrator may inspect equipment for which approval is being sought and request samples of refrigerant that has been extracted and/or recycled using the equipment. Equipment which fails to meet appropriate standards will not be considered approved.

(c) The Administrator will maintain a list of approved equipment by manufacturer and model. Persons interested in obtaining a copy of the list should send written inquiries to the address in paragraph (b) of this section.

**§ 82.38 Approved independent standards testing organizations.**

(a) Any independent standards testing organization may apply for approval by the Administrator to certify equipment as meeting the standards in appendix A to this subpart. The application shall be sent to: MVACs Recycling Program Manager, Stratospheric Ozone Protection Branch (6202-J), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460.

(b) Applications for approval must document the following:

(1) That the organization has the capacity to accurately test whether refrigerant recycling equipment complies with the applicable standards. In particular, applications must document:

(i) The equipment present at the organization that will be used for equipment testing;

(ii) The expertise in equipment testing and the technical experience of the organization's personnel;

(iii) Thorough knowledge of the standards as they appear in appendix A of this subpart; and

(iv) The test procedures to be used to test equipment for compliance with applicable standards, and why such test procedures are appropriate for that purpose.

(2) That the organization has no conflict of interest and will receive no financial benefit based on the outcome of certification testing; and

(3) That the organization agrees to allow the Administrator access to verify the information contained in the application.

(c) If approval is denied under this section, the Administrator shall give written notice to the organization setting forth the basis for his or her determination.

(d) If at any time an approved independent standards testing organization is found to be conducting certification tests for the purposes of this subpart in a manner not consistent with the representations made in its application for approval under this section, the Administrator reserves the right to revoke approval.

**§ 82.40 Technician training and certification.**

(a) Any technician training and certification program may apply for approval, in accordance with the provisions of this paragraph, by submitting to the Administrator at the address in § 82.38 (a) verification that the program meets all of the following standards:

(1) *Training.* Each program must provide adequate training, through one or more of the following means: on-the-job training, training through self-study of instructional material, or on-site training involving instructors, videos or a hands-on demonstration.

(2) *Test Subject Material.* The certification tests must adequately and sufficiently cover the following:

(i) The standards established for the service and repair of motor vehicle air conditioners as set forth in Appendix A to this subpart. These standards relate to the recommended service procedures for the containment of refrigerant, extraction and recycle equipment, and the standard of purity for refrigerant in motor vehicle air conditioners.

(ii) Anticipated future technological developments, such as the introduction of HFC-134a in new motor vehicle air conditioners.

(iii) The environmental consequences of refrigerant release and the adverse effects of stratospheric ozone layer depletion.

(iv) As of August 13, 1992, the requirements imposed by the Administrator under § 609 of the Act.

(3) *Test Administration.* Completed tests must be graded by an entity or individual who receives no benefit based on the outcome of testing; a fee may be charged for grading. Sufficient measures must be taken at the test site to ensure that tests are completed honestly by each technician. Each test must provide a means of verifying the identification of the individual taking the test. Programs are encouraged to make provisions for non-English speaking technicians by providing tests in other languages or allowing the use of a translator when taking the test. If a translator is used, the certificate received must indicate that translator assistance was required.

(4) *Proof of Certification.* Each certification program must offer individual proof of certification, such as a certificate, wallet-sized card, or display card, upon successful completion of the test. Each certification program must provide a unique number for each certified technician.

(b) In deciding whether to approve an application, the Administrator will consider the extent to which the applicant has documented that its program meets the standards set forth in this section. The Administrator reserves the right to consider other factors deemed relevant to ensure the effectiveness of certification programs. The Administrator may approve a program which meets all of the standards in paragraph (a) of this section except test administration if the program, when viewed as a whole, is at least as effective as a program that does meet all the standards. Such approval shall be limited to training and certification conducted before August 13, 1992. If approval is denied under this section, the Administrator shall give written notice to the program setting forth the basis for his determination.

(c) *Technical Revisions.* Directors of approved certification programs must conduct periodic reviews of test subject material and update the material based upon the latest technological developments in motor vehicle air conditioner service and repair. A written summary of the review and any changes made must be submitted to the Administrator every two years.

(d) *Recertification.* The Administrator reserves the right to specify the need for technician recertification at some future date, if necessary.

(e) If at any time an approved program is conducted in a manner not consistent with the representations made in the application for approval of the program under this section, the Administrator reserves the right to revoke approval.

(f) Authorized representatives of the Administrator may require technicians to demonstrate on the business entity's premises their ability to perform proper procedures for recovering and/or recycling refrigerant. Failure to demonstrate or failure to properly use the equipment may result in revocation of the technician's certificate by the Administrator. Technicians whose certification is revoked must be recertified before servicing or repairing any motor vehicle air conditioners.

**§ 82.42 Certification, recordkeeping and public notification requirements.**

(a) *Certification requirements.* (1) No later than January 1, 1993, any person repairing or servicing motor vehicle air conditioners for consideration shall certify to the Administrator that such person has acquired, and is properly using, approved equipment and that each individual authorized to use the equipment is properly trained and certified. Certification shall take the form of a statement signed by the owner of the equipment or another responsible officer and setting forth:

(i) The name of the purchaser of the equipment;

(ii) The address of the establishment where the equipment will be located; and

(iii) The manufacturer name and equipment model number, the date of manufacture, and the serial number of the equipment. The certification must also include a statement that the equipment will be properly used in servicing motor vehicle air conditioners, that each individual authorized by the purchaser to perform service is properly trained and certified in accordance with § 82.40, and that the information given is true and correct. The certification should be sent to: MVACs Recycling Program Manager, Stratospheric Ozone Protection Branch (6202–J), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460.

(2) The prohibitions in § 82.34(a) shall be effective as of January 1, 1993 for persons repairing or servicing motor vehicle air conditioners for consideration at an entity which performed service on fewer than 100 motor vehicle air conditioners in calendar year 1990, but only if such person so certifies to the Administrator no later than August 13, 1992. Persons must retain adequate records to demonstrate that the number of vehicles serviced was fewer than 100.

(3) Certificates of compliance are not transferable. In the event of a change of ownership of an entity which services motor vehicle air conditioners for consideration, the new owner of the entity shall certify within thirty days of the change of ownership pursuant to § 82.42(a)(1).

(b) *Recordkeeping requirements.* (1) Any person who owns approved refrigerant recycling equipment certified under § 82.36(a)(2) must maintain records of the name and address of any facility to which refrigerant is sent.

(2) Any person who owns approved refrigerant recycling equipment must retain records demonstrating that all persons authorized to operate the equipment are currently certified under § 82.40.

(3) Any person who sells or distributes any class I or class II substance that is suitable for use as a refrigerant in a motor vehicle air conditioner and that is in a container of less than 20 pounds of such refrigerant must verify that the purchaser is properly trained and certified under § 82.40. The seller must have a reasonable basis for believing that the information presented by the purchaser is accurate. The only exception to these requirements is if the purchaser is purchasing the small containers for resale only. In this case, the seller must obtain a written statement from the purchaser that the containers are for resale only and indicate the purchasers name and business address. Records required under this paragraph must be retained for a period of three years.

(4) All records required to be maintained pursuant to this section must be kept for a minimum of three years unless otherwise indicated. Entities which service motor vehicle air conditioners for consideration must keep these records on-site.

(5) All entities which service motor vehicle air conditioners for consideration must allow an authorized representative of the Administrator entry onto their premises (upon presentation of his or her credentials) and give the authorized representative access to all records required to be maintained pursuant to this section.

(c) *Public Notification.* Any person who conducts any retail sales of a class I or class II substance that is suitable for use as a refrigerant in a motor vehicle air conditioner, and that is in a container of less than 20 pounds of refrigerant, must prominently display a sign where sales of such containers occur which states:

"It is a violation of federal law to sell containers of Class I and Class II refrigerant of less than 20 pounds of such refrigerant to anyone who is not properly trained and certified to operate approved refrigerant recycling equipment."

## Appendix A to Subpart B—Standard for Recycle/Recover Equipment

### Standard of Purity for Use in Mobile Air-Conditioning Systems

*Foreword*

Due to the CFC's damaging effect on the ozone layer, recycle of CFC–12 (R–12) used in mobile air-conditioning systems is required to reduce system venting during normal service operations. Establishing recycle specifications for R–12 will assure that system operation with recycled R–12 will provide the same level of performance as new refrigerant.

Extensive field testing with the EPA and the auto industry indicate that reuse of R–12 removed from mobile air-conditioning systems can be considered, if the refrigerant is cleaned to a specific standard. The purpose of this standard is to establish the specific minimum levels of R–12 purity required for recycled R–12 removed from mobile automotive air-conditioning systems.

*1. Scope*

This information applies to refrigerant used to service automobiles, light trucks, and other vehicles with similar CFC–12 systems. Systems used on mobile vehicles for refrigerated cargo that have hermetically sealed, rigid pipe are not covered in this document.

*2. References*

SAE J1989, Recommended Service Procedure for the Containment of R–12

SAE J1990, Extraction and Recycle Equipment for Mobile Automotive Air-Conditioning Systems

ARI Standard 700–88

*3. Purity Specification*

The refrigerant in this document shall have been directly removed from, and intended to be returned to, a mobile air-conditioning system. The contaminants in this recycled refrigerant 12 shall be limited to moisture, refrigerant oil, and noncondensable gases, which shall not exceed the following level:

3.1 *Moisture:* 15 ppm by weight.

3.2 *Refrigerant Oil:* 4000 ppm by weight.

3.3 *Noncondensable Gases (air):* 330 ppm by wright.

*4. Refrigeration Recycle Equipment Used in Direct Mobile Air-Conditioning Service Operations Requirement*

4.1 The equipment shall meet SAE J1990, which covers additional moisture, acid, and filter requirements.

4.2 The equipment shall have a label indicating that it is certified to meet this document.

*5. Purity Specification of Recycled R–12 Refrigerant Supplied in Containers From Other Recycle Sources*

Purity specification of recycled R–12 refrigerant supplied in containers from other recycle sources, for service of mobile air-conditioning systems, shall meet ARI Standard 700–88 (Air Conditioning and Refrigeration Institute).

*6. Operation of the Recycle Equipment*

This shall be done in accordance with SAE J1989.

*Rationale*

Not applicable.

*Relationship of SAE Standard to ISO Standard*

Not applicable.

*Reference Section*

SAE J1989, Recommended Service Procedure for the Containment of R–12

SAE J1990, Extraction and Recycle Equipment for Mobile Automotive Air-Conditioning Systems
ARI Standard 700-88

*Application*

This information applies to refrigerant used to service automobiles, light trucks, and other vehicles with similar CFC-12 systems. Systems used on mobile vehicles for refrigerated cargo that have hermetically sealed, rigid pipe are not covered in this document.

*Committee Composition*

Developed by the SAE Defrost and Interior Climate Controls Standards Committee

W.J. Atkinson, Sun Test Engineering, Paradise Valley, AZ—Chairman
J.J. Amin, Union Lake, MI
H.S. Andersson, Saab Scania, Sweden
P.E. Anglin, ITT Higbie Mfg. Co., Rochester, MI
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D. Hawks, General Motors Corporation, Pontiac, MI
J.J. Hernandez, NAVISTAR, Ft. Wayne, IN
H. Kaltner, Volkswagen AG, Germany, Federal Republic
D.F. Last, GMC, Troy, MI
D.E. Linn, Volkswagen of America, Warren, MI
J.H. McCorkel, Freightliner Corp., Charlotte, NC
C.J. McLachlan, Livonia, MI
H.L. Miner, Climate Control Inc., Decatur, IL
R.J. Niemiec, General Motors Corp., Pontiac, MI
N. Novak, Chrysler Corp., Detroit, MI
S. Oulouhojian, Mobile Air Conditioning Society, Upper Darby, PA
J. Phillips, Air International, Australia
R.H. Proctor, Murray Corp., Cockeysville, MD
G. Rolling, Behr America Inc., Ft. Worth, TX
C.D. Sweet, Signet Systems Inc., Harrodsburg, KY
J.P. Telesz, General Motors Corp., Lockport, NY

**Extraction and Recycle Equipment for Mobile Automotive Air Conditioning Systems**

SAE Recommended Practice, SAE J1990 (1991) [1]

*0. Foreword*

Due to the CFC's damaging effect on the ozone layer, recycle of CFC-12 (R-12) used in mobile air-conditioning systems is required to replace system venting during normal service operations. Establishing recycle specifications for R-12 will provide the same level of performance as new refrigerant.

Extensive field testing with the EPA and the auto industry indicates that R-12 can be reused, provided that it is cleaned to specifications in SAE J1991. The purpose of this document is to establish the specific minimum equipment specification required for recycle of R-12 that has been directly removed from mobile systems for reuse in mobile automotive air-conditioning systems.

*1. Scope*

The purpose of this document is to provide equipment specifications for CFC-12 (R-12) recycling equipment. This information applies to equipment used to service automobiles, light trucks, and other vehicles with similar CFC-12 air-conditioning systems. Systems used on mobile vehicles for refrigerated cargo that have hermetically sealed systems are not covered in this document. The equipment in this document is intended for use with refrigerant that has been directly removed from, and intended to be returned to, a mobile air-conditioning system. Should other revisions due to operational or technical requirements occur, this document may be amended.

*2. References*

2.1 Applicable Documents:

2.1.1 SAE Publications—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J1991—Standard of Purity for Use in Mobile Air-Conditioning Systems
SAE J2196—Service Hose for Automotive Air-Conditioning

2.1.2 CGA Publications—Available from CGA, Crystal Gateway #1, Ste. 501, 1235 Jefferson Davis Hwy., Arlington, VA 22202

CGA Pamphlet S-1.1—Pressure Relief Device Standard Part 1—Cylinders for Compressed Gases

*3. Specification and General Description*

3.1 The equipment must be able to extract and process CFC-12 from mobile air-conditioning systems. The equipment shall process the contaminated R-12 samples as defined in 8.4 and shall clean the refrigerant to the level as defined in SAE J1991.

3.2 The equipment shall be suitable for use in an automotive service environment and be capable of continuous operation in ambients from 10 to 49 °C.

3.3 The equipment must be certified by Underwriters Laboratories or an equivalent certifying laboratory.

3.4 The equipment shall have a label "Design Certified by (Company Name) to Meet SAE J1991". The minimum letter size shall be bold type 3 mm in height.

*4. Refrigeration Recycle Equipment Requirements*

4.1 Moisture and Acid—The equipment shall incorporate a desiccant package that must be replaced before saturated with moisture and whose mineral acid capacity is at least 5% by weight of total system dry desiccant.

4.1.1 The equipment shall be provided with a moisture detection device that will reliably indicate when moisture in the CFC-12 exceeds the allowable level and requires the filter/dryer replacement.

4.2 Filter—The equipment shall incorporate an in-line filter that will trap particulates of 15 μm or greater.

4.3 Noncondensable Gas.

4.3.1 The equipment shall either automatically purge noncondensables (NCGs) if the acceptable level is exceeded or incorporate a device to alert the operator that NCG level has been exceeded. NCG removal must be part of normal operation of the equipment and instructions must be provided to enable the task to be accomplished within 30 minutes.

4.3.2 Refrigerant loss from noncondensable gas purging during testing described in Section 8 shall not exceed five percent (5%) by weight of the total contaminated refrigerant removed from the test system.

4.3.3 Transfer of Recycled Refrigerant—Recycled refrigerant for recharging and transfer shall be taken from the liquid phase only.

*5. Safety Requirements*

5.1 The equipment must comply with applicable federal, state and local requirements on equipment related to the handling of R-12 material. Safety precautions or notices related to the safe operation of the equipment shall be prominently displayed on the equipment and should also state "Caution—Should Be Operated By Qualified Personnel".

*6. Operating Instructions*

6.1 The equipment manufacturer must provide operating instructions, necessary maintenance procedures, and source information for replacement parts and repair.

6.2 The equipment must prominently display the manufacturer's name, address and any items that require maintenance or replacement that affect the proper operation of the equipment. Operation manuals must cover information for complete maintenance of the equipment to assure proper operation.

*7. Functional Description*

7.1 The equipment must be capable of ensuring recovery of the R-12 from the system being service, by reducing the system pressure below atmospheric to a minimum of 102 mm of mercury.

7.2 To prevent overcharge, the equipment must be equipped to protect the tank used to store the recycled refrigerant with a shutoff device and a mechanical pressure relief valve.

7.3 Portable refillable tanks or containers used in conjunction with this equipment must meet applicable Department of Transportation (DOT) or Underwriters Laboratories (UL) Standards and be adaptable to existing refrigerant service and charging equipment.

7.4 During operation, the equipment shall provide overfill protection to assure the storage container, internal or external, liquid fill does not exceed 80% of the tank's rated volume at 21.1 °C (70 °F) per DOT standards, CFR title 49, § 173.304 and American Society of Mechanical Engineers.

7.4.1 Additional Storage Tank Requirements.

7.4.1.1 The cylinder valve shall comply with the standard for cylinder valves, UL 1769.

7.4.1.2 The pressure relief device shall comply with the Pressure Relief Device

[1] This standard is appropriate for equipment certified after February 1, 1992. This equipment may be marked design certified for compliance with SAE J1990 (1991). The standard for approval for equipment certified on or before February 1, 1992 is SAE J1990 (1989). This equipment may be marked design certified for compliance with SAE J1990 (1989). Both types of equipment are considered approved under the requirements of this regulation

Standard Part 1—Cylinders for Compressed Gases, CGA Pamphlet S-1.1.

7.4.1.3 The tank assembly shall be marked to indicate the first retest date, which shall be 5 years after date of manufacture. The marking shall indicate that retest must be performed every subsequent 5 years. The marking shall be in letters at least ¼ in high.

7.5 All flexible hoses must meet SAE J2196 hose specification effective January 1, 1992.

7.6 Service hoses must have shutoff devices located within 30 cm (12 in) of the connection point to the system being serviced to minimize introduction of noncondensable gases into the recovery equipment and the release of the refrigerant when being disconnected.

7.7 The equipment must be able to separate the lubricant from the recovered refrigerant and accurately indicate the amount removed during the process, in 30 ml units. Refrigerant dissolves in lubricant sample. This creates the illusion that more lubricant has been recovered than actually has been. The equipment lubricant measuring system must take in account such dissolved refrigerant to prevent overcharging the vehicle system with lubricant. Note: Use only new lubricant to replace the amount removed during the recycle process. Used lubricant should be discarded per applicable federal, state, and local requirements.

7.8 The equipment must be capable of continuous operation in ambient of 10 to 49 °C (50 to 120 °F).

7.9 The equipment should be compatible with leak detection material that may be present in the mobile AC system.

*8. Testing*

This test procedure and the requirement are used for evaluation of the equipment for its ability to clean the contaminated R-12 refrigerant.

8.1 The equipment shall clean the contaminated R-12 refrigerant to the minimum purity level as defined in SAE J1991, when tested in accordance with the following conditions:

8.2 For test validation, the equipment is to be operated according to the manufacturer's instructions.

8.3 The equipment must be preconditioned with 13.6 kg (30 lb) of the standard contaminated R-12 at an ambient of 21 °C (70 °F) before starting the test cycle. Sample amounts are not to exceed 1.13 kg (2.5 lb) with sample amounts to be repeated every 5 min. The sample method fixture, defined in Fig. 1, shall be operated at 24 °C (75 °F).

8.4 Contaminated R-12 Samples.

8.4.1 Standard contaminated R-12 refrigerant shall consist of liquid R-12 with 100 ppm (by weight) moisture at 21 °C (70 °F) and 45,000 ppm (by weight) mineral oil 525 suspension nominal and 770 ppm by weight of noncondensable gases (air).

8.4.2 High moisture contaminated sample shall consist of R-12 vapor with 1,000 ppm (by weight) moisture.

8.4.3 High oil contaminated sample shall consist of R-12 with 200,000 ppm (by weight) mineral oil 525 suspension viscosity nominal.

8.5 Test Cycle.

8.5.1 After preconditioning as stated in 8.3, the test cycle is started, processing the following contaminated samples through the equipment:

8.5.1.1 3013.6 kg (30 lb) of standard contaminated R-12.

8.5.1.2 1 kg (2.2 lb) of high oil contaminated R-12.

8.5.1.3 4.5 kg (10 lb) of standard contaminated R-12.

8.5.1.4 1 kg (2.2 lb) of high moisture contaminated R-12.

8.6 Equipment Operating Ambient.

8.6.1 The R-12 is to be cleaned to the minimum purity level, as defined in SAE J1991, with the equipment operating in a stable ambient of 10, 21, and 49 °C (50, 70, and 120 °F) and processing the samples as defined in 8.5.

8.7 Sample Analysis.

8.7.1 The processed contaminated sample shall be analyzed according to the following procedure.

8.8 Quantitative Determination of Moisture.

8.8.1 The recycled liquid phase sample of CFC-12 shall be analyzed for moisture content via Karl Fischer coulometer titration or an equivalent method. The Karl Fischer apparatus is an instrument for precise determination of small amounts of water dissolved in liquid and/or gas samples.

8.8.2 In conducting the test, a weighed sample of 30 to 130 grams is vaporized directly into the Karl Fischer analyte. A coulometer titration is conducted and the results are calculated and displayed as parts per million moisture (weight).

8.9 Determination of Percent Lubricant.

8.9.1 The amount of oil in the recycled sample of CFC-12 is to be determined by gravimetric analysis.

8.9.2 Following venting of noncondensable, in accordance with the manufacturer's operating instructions, the refrigerant container shall be shaken for 5 minutes prior to extracting samples for test.

8.9.3 A weighted sample of 175 to 225 grams of liquid CFC-12 is allowed to evaporate at room temperature. The percent oil is to be calculated from the weight of the original sample and the residue remaining after the evaporation.

8.10 Noncondensable Gas.

8.10.1 The amount of noncondensable gas is to be determined by gas chromatography. A sample of vaporized refrigerant liquid shall be separated and analyzed by gas chromatography. A Porapak Q column at 130 °C and a hot wire detector may be used for analysis.

8.10.2 This test shall be conducted on recycled refrigerant (taken from the liquid phase) within 30 minutes after the proper venting of noncondensable.

8.10.3 Samples shall be shaken for 8 hours prior to retesting while at a temperature of 24 ± 2.8 °C (75 ± 5 °F). Known volumes of refrigerant vapor are to be injected for separation and analysis by means of gas chromatography. A Porapak Q column at 130 °C (266 °F) and a hot wire detector are to be used for the analysis.

8.10.4 This test shall be conducted at 21 and 49 °C and may be performed in conjunction with the testing defined in Section 8.6. The equipment shall process at least 13.6 kg of standard contaminated refrigerant for this test.

8.11 Sample Requirements.

8.11.1 The sample shall be tested as defined in 8.7, 8.8, 8.9, and 8.10 at ambient temperatures of 10, 21, and 49 °C (50, 70 and 120 °F) as defined in 8.6.1.

BILLING CODE 6560-50-M

J1990

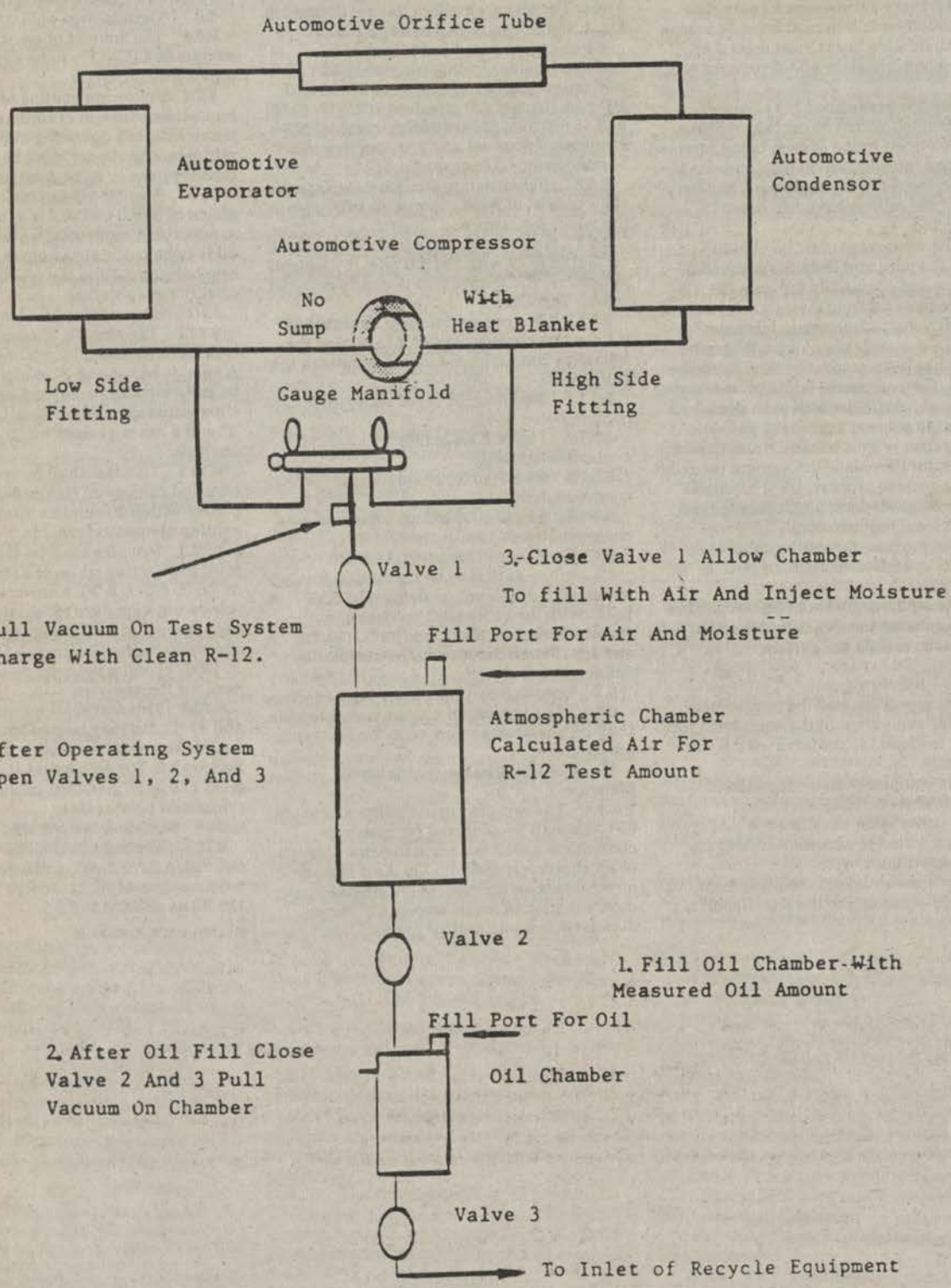


FIGURE 1

BILLING CODE 6560-50-C

**Recommended Service Procedure for the Containment of R-12**

*1. Scope*

During service of mobile air-conditioning systems, containment of the refrigerant is important. This procedure provides service guidelines for technicians when repairing vehicles and operating equipment defined in SAE J1990.

*2. References*

SAE J1990, Extraction and Recycle Equipment for Mobile Automotive Air-Conditioning Systems

*3. Refrigerant Recovery Procedure*

3.1 Connect the recovery unit service hoses, which shall have shutoff valves within 12 in (30 cm) of the service ends, to the vehicle air-conditioning system service ports.

3.2 Operate the recovery equipment as covered by the equipment manufacturers recommended procedure.

3.2.1 Start the recovery process and remove the refrigerant from the vehicle AC system. Operate the recovery unit until the vehicle system has been reduced from a pressure to a vacuum. With the recovery unit shut off for at least 5 min, determine that there is no refrigerant remaining in the vehicle AC system. If the vehicle system has pressure, additional recovery operation is required to remove the remaining refrigerant. Repeat the operation until the vehicle AC system vacuum level remains stable for 2 min.

3.3 Close the valves in the service lines and then remove the service lines from the vehicle system. Proceed with the repair/service. If the recovery equipment has automatic closing valves, be sure they are properly operating.

*4. Service With Manifold Gage Set*

4.1 Service hoses must have shutoff valves in the high, low, and center service hoses within 12 in (30 cm) of the service ends. Valves must be closed prior to hose removal from the air-conditioning system. This will reduce the volume of refrigerant contained in the service hose that would otherwise be vented to atmosphere.

4.2 During all service operations, the valves should be closed until connected to the vehicle air-conditioning system or the charging source to avoid introduction of air and to contain the refrigerant rather than vent open to atmosphere.

4.3 When the manifold gage set is disconnected from the air-conditioning system or when the center hose is moved to another device which cannot accept refrigerant pressure, the gage set hoses should first be attached to the reclaim equipment to recover the refrigerant from the hoses.

*5. Recycled Refrigerant Checking Procedure for Stored Portable Auxiliary Container*

5.1 To determine if the recycled refrigerant container has excess noncondensable gases (air), the container must be stored at a temperature of 65°F (18.3°C) or above for a period of time, 12 h, protected from direct sun.

5.2 Install a calibrated pressure gage, with 1 psig divisions (0.07 kg), to the container and determine the container pressure.

5.3 With a calibrated thermometer, measure the air temperature within 4 in (10 cm) of the container surface.

5.4 Compare the observed container pressure and air temperature to determine if the container exceeds the pressure limits found on Table 1, e.g., air temperature 70°F (21°C) pressure must not exceed 80 psig (5.62 kg/cm²).

TABLE 1

| Temp °F | Psig | Temp °F | Psig | Temp °F | Psig | Temp °F | Psig | Temp °F | Psig |
|---|---|---|---|---|---|---|---|---|---|
| 65 | 74 | 75 | 87 | 85 | 102 | 95 | 118 | 105 | 136 |
| 66 | 75 | 76 | 88 | 86 | 103 | 96 | 120 | 106 | 138 |
| 67 | 76 | 77 | 90 | 87 | 105 | 97 | 122 | 107 | 140 |
| 68 | 78 | 78 | 92 | 88 | 107 | 98 | 124 | 108 | 142 |
| 69 | 79 | 79 | 94 | 89 | 108 | 99 | 125 | 109 | 144 |
| 70 | 80 | 80 | 96 | 90 | 110 | 100 | 127 | 110 | 146 |
| 71 | 82 | 81 | 98 | 91 | 111 | 101 | 129 | 111 | 148 |
| 72 | 83 | 82 | 99 | 92 | 113 | 102 | 130 | 112 | 150 |
| 73 | 84 | 83 | 100 | 93 | 115 | 103 | 132 | 113 | 152 |
| 74 | 86 | 84 | 101 | 94 | 116 | 104 | 134 | 114 | 154 |

TABLE 1 (METRIC)

| Temp° C | Pres | Temp° C | Pres | Temp° C | Pres | Temp° C | Pres | Temp° C | PRres |
|---|---|---|---|---|---|---|---|---|---|
| 18.3 | 5.20 | 23.9 | 6.11 | 29.4 | 7.17 | 35.0 | 8.29 | 40.5 | 9.56 |
| 18.8 | 5.27 | 24.4 | 6.18 | 30.0 | 7.24 | 35.5 | 8.43 | 41.1 | 9.70 |
| 19.4 | 5.34 | 25.0 | 6.32 | 30.5 | 7.38 | 36.1 | 8.57 | 41.6 | 9.84 |
| 20.0 | 5.48 | 25.5 | 6.46 | 31.1 | 7.52 | 36.6 | 8.71 | 42.2 | 9.98 |
| 20.5 | 5.55 | 26.1 | 6.60 | 31.6 | 7.59 | 37.2 | 8.78 | 42.7 | 10.12 |
| 21.1 | 5.62 | 26.6 | 6.74 | 32.2 | 7.73 | 37.7 | 8.92 | 43.3 | 10.26 |
| 21.6 | 5.76 | 27.2 | 6.88 | 32.7 | 7.80 | 38.3 | 9.06 | 43.9 | 10.40 |
| 22.2 | 5.83 | 27.7 | 6.95 | 33.3 | 7.94 | 38.8 | 9.13 | 44.4 | 10.54 |
| 22.7 | 5.90 | 28.3 | 7.03 | 33.9 | 8.08 | 39.4 | 9.27 | 45.0 | 10.68 |
| 23.3 | 6.04 | 28.9 | 7.10 | 34.4 | 8.15 | 40.0 | 9.42 | 45.5 | 10.82 |

Pres kg/sq cm.

5.5 If the container pressure is less than the Table 1 values and has been recycled, limits of noncondensable gases (air) have not been exceeded and the refrigerant may be used.

5.6 If the pressure is greater than the range and the container contains recycled material, slowly vent from the top of the container a small amount of vapor into the recycle equipment until the pressure is less than the pressure shown on Table 1.

5.7 If the container still exceeds the pressure shown on Table 1, the entire contents of the container shall be recycled.

*6. Containers for Storage of Recycled Refrigerant*

6.1 Recycled refrigerant should not be salvaged or stored in disposable refrigerant containers. This is the type of container in which virgin refrigerant is sold. Use only DOT CFR title 49 or UL approved storage containers for recycled refrigerant.

6.2 Any container of recycled refrigerant that has been stored or transferred must be checked prior to use as defined in section 5.

*7. Transfer of Recycled Refrigerant*

7.1 When external portable containers are used for transfer, the container must be evacuated at least 27 in of vacuum (75 mm Hg absolute pressure) prior to transfer of the recycled refrigerant. External portable containers must meet DOT and UL standards.

7.2 To prevent on-site overfilling when transferring to external containers, the safe

filling level must be controlled by weight and must not exceed 60% of container gross weight rating.

*8. Disposal of Empty/Near Empty Containers*

8.1 Since all the refrigerant may not be removed from disposable refrigerant containers during normal system charging procedures, empty/near empty container contents should be reclaimed prior to disposal of the container.

8.2 Attach the container to the recovery unit and remove the remaining refrigerant. When the container has been reduced from a pressure to a vacuum, the container valve can be closed. The container should be marked empty and is ready for disposal.

*Rationale*

Not applicable.

*Relationship of SAE Standard to ISO Standard.*

Not applicable.

*Reference Section*

SAE J1990, Extraction and Recycle Equipment for Mobile Automotive Air-Conditioning Systems

*Application*

During service of mobile air-conditioning systems, containment of the refrigerant is important. This procedure provides service guidelines for technicians when repairing vehicles and operating equipment defined in SAE J1990.

*Committee Composition*

*Developed by the SAE Defrost and Interior Climate Control Standards Committee*

W.J. Atkinson, Sun Test Engineering, Paradise Valley, AZ—Chairman
J.J. Amin, Union Lake, MI
H.S. Andersson, Saab Scania, Sweden
P.E. Anglin, ITT Higbie Mfg. Co., Rochester, MI
R.W. Bishop, GMC, Lockport, NY
D.Hawks, General Motors Corporation, Pontiac, MI
J.J. Hernandez, NAVISTAR, Ft. Wayne, IN
H. Kaltner, Volkswagen AG, Germany, Federal Republic
D.F. Last, GMC, Troy, MI
D.E. Linn, Volkswagen of America, Warren, MI
J.H. McCorkel, Freightliner Corp., Charlotte, NC
C.J. McLachlan, Livonia, MI
H.L. Miner, Climate Control Inc., Decatur, IL
R.J. Niemiec, General Motors Corp., Pontiac, MI
N. Novak, Chrysler Corp., Detroit, MI
S. Oulouhojian, Mobile Air Conditioning Society, Upper Darby, PA
J. Phillips, Air International, Australia
R.H. Proctor, Murray Corp., Cockeysville, MD
G. Rolling, Behr America Inc., Ft. Worth, TX
C.D. Sweet, Signet Systems Inc., Harrodsburg, KY
J.P. Telesz, General Motors Corp., Lockport, NY

**Note:** This form will not appear in the Code of Federal Regulations.

BILLING CODE 6560-50-M

# MVAC RECOVER/RECYCLE OR RECOVER EQUIPMENT CERTIFICATION FORM

**1** _____
Name of Establishment

_____
Street

_____
City, State, Zip Code

_____
(Area Code) Telephone Number

**2** _____
Name of Equipment Manufacturer and Model Number

_____
Serial Number(s) Year

**3** **I certify that I have acquired approved recover/recycle or recover equipment under Section 609 of the Clean Air Act. I certify that only properly trained and certified technicians operate the equipment and that the information given above is true and correct.**

_____ _____
Signature of Owner/Operator Date

_____
Name (Please Print) Title

**4** **Small Entity Certification.**

**I certify that fewer than 100 jobs involving refrigerant were performed at the establishment named in Part 1 of this form during 1990. I will purchase approved equipment and certify this to EPA by January 1, 1993.**

_____ _____
Signature Date

_____ _____
Name (Please Print) Title

**Send this form to:**
**MVACs Recycling Program Manager**
**Stratospheric Ozone**
**Protection Branch**
**(6202–J)**
**U.S. EPA**
**401 M Street, S.W.**
**Washington, D.C. 20460**

## MVAC RECOVER/RECYCLE OR RECOVER EQUIPMENT CERTIFICATION FORM INSTRUCTIONS

**Motor vehicle recover/recycle or recover equipment must be acquired by January 1,1992 and certified to EPA on or before January 1, 1993 under Section 609 of the Clean Air Act. To certify your equipment, please complete the above form according to the following instructions and mail to EPA at the following address: MVACs Recycling Program Manager, Stratospheric Ozone Protection Branch, (6202–J), U.S. EPA, 401 M Street, S.W., Washington , D.C. 20460.**

**1** *Please provide the name, address and telephone number of the establishment where the recover/recycle or recover equipment is located.*

**2** *Please provide the name brand, model number, year, and serial number(s) of the recover/recycle or recover equipment acquired for use at the above establishment.*

**3** *The certification statement must be signed by the person who has acquired the recover/recycle or recover equipment (the person may be the owner of the establishment or another responsible officer). The person who signs is certifying that they have acquired the equipment, that each individual authorized to use the equipment is properly trained and certified, and that the information provided is true and correct.*

**4** **Small Entity Certification**. *Service establishments that serviced fewer than 100 jobs involving refrigerant during 1990 are not required to purchase equipment until January 1, 1993. To qualify for this one year extension, the owner must fill out Part 1, sign the statement in Part 4 above, and send this form to EPA. Upon inspection, the owner must be able to prove it serviced fewer than 100 jobs in 1990. Small entities must buy approved equipment and certify to EPA by January 1, 1993.*

S25055-3

**Appendix B to Subpart B—Standard for Recover Equipment [Reserved]**

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