



# RAD Annual Reporting 2013 Training Webinar

Melissa Fiffer, U.S. EPA  
Pamela Mathis, ICF International  
Jenny Tanphanich, ICF International

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# Agenda

- ❑ Introduction
- ❑ Overview of Reporting Form
- ❑ 2013 Updates
- ❑ Demo
- ❑ Reminders for Proper Reporting
- ❑ Questions & Answers



# Introduction

## □ Importance of Reporting

- Partner and Program benefits
- Annual RAD Report available at <http://www2.epa.gov/rad/rad-annual-report>

## □ How to report

- Electronic reporting forms available at <http://www2.epa.gov/rad/rad-reporting-form>
- Forms due to EPA by January 31



# Introduction

- Working Group on Reporting Form Updates
  - Thank you!
  - Next steps



Recover. Recycle. Reclaim.

# Overview of Annual Reporting Form

## □ 7 Steps:

- Step 1: Contact and Program Information
- Step 2: Third-Party Information
- Step 3: Activity Data on Processed Units
  - Refrigerators
  - Stand-Alone Freezers
  - Air-Conditioning Units
  - Dehumidifiers



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# Overview of Annual Reporting Form

- Step 4: Units Jointly Processed
- Step 5: Quality Assurance and Results
  - QA: Input Data Summary
  - Results: Environmental Benefits
  - Results: Energy Impacts
- Step 6: Partner Feedback
- Step 7: Confirmation



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# 2013 Updates

- ❑ Deleted fields for rubber recovery
- ❑ Added fields to allow users to delineate total units processed, as well as those with foam and refrigerant recovery
- ❑ Added fields to clarify how to report units jointly processed



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# 2013 Updates

- ❑ Added CFC-12 and R-500 refrigerant types to dehumidifier worksheet
- ❑ In 'QA/Input Data Summary' worksheet, added comment fields to show the typical range of data reported as being recovered by partners on a per-unit basis
- ❑ Updated instructions



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# Reporting Form Demo



Recover. Recycle. Reclaim.

# Reminders for Proper Reporting

- Instructions and definitions can help guide you through the form

## INSTRUCTIONS

Please complete all worksheets that are applicable to your program. Within each worksheet, please provide information for all fields requested. The purpose of each worksheet and the type of information requested in each is outlined below. Please ensure that all of the following steps have been completed before submitting the reporting form.

### Step 1: Contact and Program Information

Provide your contact and program information.

### Step 2: Third-Party Information

Enter contact information for and details about all companies providing appliance collection and processing services under your program.

### Step 3: Activity Data on Processed Units

Complete a Step 3 worksheet for each appliance type included in your program.

There are separate worksheets for Refrigerators, Stand-Alone Freezers, Air Conditioning Units, and Dehumidifiers. For each type of appliance processed by your program, complete the worksheet to provide the number of units processed and the amounts of materials/components recovered from those units.

### Step 4: Units Handled Jointly by Your Organization and Another

Complete this worksheet if any appliances were jointly processed units by refrigerant type and blowing agent type, report only the un

### Step 5: Summary of Input Data for Quality Assurance and Program

- Review Step 5 Summary of Input Data for Quality Assurance w is accurate. This worksheet is used for quality assurance purp
- Review Step 5 Summary of Program's Environmental Benefits a Removal of Old Units worksheets to learn about the environmer

### Step 6: Partner Feedback

Provide qualitative information on your program and any input on th

### Step 7: Confirmation

Check and sign a statement confirming that all information provide

## DEFINITIONS

**Recover:** To remove a material (in any condition) from an appliance and then store it externally without necessarily testing or processing it in any way.

**Reclaim:** To reprocess ODS and ODS substitutes using specialized machinery to at least the requirements specified in the ARI Standard 700, Specifications for Fluorocarbon Refrigerants, and to verify using the analytical methodology prescribed in the Standard.

**Recycle:** To extract material from an appliance and process it for reuse. Recycling durable components, such as metals, rubber, plastic, and glass, entails reprocessing them for future use in other manufactured products, and not reuse of the appliance itself. When recycling used oil, refrigerants must be recovered from the used oil to the fullest extent possible, and the used oil cannot be mixed with used oil from sources other than refrigeration units.

**Destroy:** To cause the expiration of a controlled substance. Destruction does not result in a commercially useful end product. For refrigerant or foam-blowing agent, destruction must be performed in accordance with the guidelines in 40 CFR §82.3. For PCBs, which are found in capacitors manufactured before 1980, destruction must be in accordance with 40 CFR §761.

**Dispose:** Mercury waste, such as switches and relays, must be recovered from appliances prior to disposal or shredding, sent to a qualified recovery facility that has appropriate hazardous waste management permits, and managed in accordance with applicable federal, state, and local hazardous waste regulations (e.g., waste must be properly packaged prior to transport). The federal hazardous waste regulations under the Resource Conservation and Recovery Act (RCRA) can be found in 40 CFR §260 - 279. Used oil must be disposed in accordance with 40 CFR §279.81.

**Energy Cost for Residential Consumers (\$/kWh):** the energy cost paid by consumers, which may include a customer charge, distribution charge, transmission charge, transition charge, generation service charge, or other charges based on the electricity pricing scheme in your region.

# Reminders for Proper Reporting

- Step 1 form (program info)
  - Indicate which appliance types are being processed by your program

## B. Program Information

Please select the RAD partner category your program falls under:

Utility

How many households are in the area served by your program?

1,500

Indicate which appliance types are included in your program:

Refrigerators

Yes

Complete Step 3 - Refrigerators worksheet

Stand-Alone Freezers

Yes

Complete Step 3 - Stand-Alone Freezers worksheet

Air-Conditioning Units

No

Dehumidifiers

No

Does your program jointly process/administer some appliances with another RAD partner?

Yes

Complete Step 3 - Units Jointly Processed worksheet

Does your program provide an incentive (e.g., financial) to encourage disposal of old, working refrigerated appliances?

Yes

Complete Table C in each Step 3 Activity Data worksheet

# Reminders for Proper Reporting

## □ Step 2 (third-party info)

- For third parties that process materials (e.g., demanufacturers), provide address of facilities where processing occurs, not head offices

### Step 2: Third-Party Information

**Instructions:** In Tables A-E below, please indicate the contact information for all companies used by your program to collect/treat appliances and recovered materials in order to fulfill the requirements of the RAD Program. Indicate an "x" for the role fulfilled by each company. Note that you may need to contact third-party providers in order to obtain the names and addresses of the companies that provide the services specified. Please add additional rows if needed.

#### A. Haul-Away and Demanufacturing Companies

Company Name	Contact Name	Phone Number	Address	Company Role					
				Appliance Haul-Away	Refrigerant Recovery	Foam/Blowing Agent Recovery	Mercury Recovery	Used Oil Recovery	PCBs Recovery
Company A				x	x		x	x	x
Company B					x	x			

#### B. Refrigerant Reclamation and Destruction Facilities

Company Name	Contact Name	Phone Number	Address	Facility Role		Type of Destruction Technology (if applicable)
				Reclamation	Destruction	
Company C					x	WTE boiler

# Reminders for Proper Reporting

## □ Step 3 (processed units):

- If refrigerant or blowing agent is in storage, report on *intended* fate
- Use the comments section to provide additional information or clarifications

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**Step 3: Activity Data on Refrigerators** 0 MMDDYYYY to MMDDYYYY

Instructions: All partners should complete Tables A and B. If your program provides an incentive (e.g., financial) to encourage the disposal of old, working refrigerated appliances, please also complete Table C. When populating cells, please use the units provided; do not add text to specify units. This form only recognizes numbers.

**A. Units Processed**  
Please complete the gray cells below. If you wish to provide further information regarding the units processed by your program or have processed units containing a type of refrigerant or insulating material not listed below, please use the space for "Additional Comments" at the bottom of this worksheet.

Number of Units Processed Containing the Following Refrigerants	Refrigerant Type Based On:	Comments
CFC-12		
HFC-134a		
Other		
None	0	

Number of Units Processed Containing the Following Insulating Materials	Insulating Material Type Based On:	Comments
CFC-11 Blowing Agent		
HFC-141b Blowing Agent		
HFC-134a Blowing Agent		
HFC-245fa Blowing Agent		
Cyclopentane Blowing Agent		
Fiberglass		
Other		
None	0	

**B. Fate and Quantity of Substances Recovered**  
Please complete the table below to provide the total amount of appliance components recovered by your program during the current reporting period. If any substances recovered during the current reporting period are currently in storage, please report on the intended fate of the substance. Refer back to the instructions for use for definitions of the fates for each component. For any fields that do not apply to your program, please enter "0" under "Total Amount" in column F. For every non-zero value entered in column F, indicate whether the quantity specified is based on actual measurements or on assumptions by selecting the appropriate option in column H. If you wish to provide further information regarding your program data, please use the space for "Additional Comments" at the bottom of this worksheet.

Appliance Component	Fate of Component	Total Amount	Total Amount Based On:
Refrigerant (including that recovered from compressor oil)	CFC-12		
	Recovered		
	Destroyed		
	Other		
HFC-134a	Recovered		
	Destroyed		
	Other		
	None	0	
Foam-Blowing Agent*	CFC-11		
	Recovered		
	Destroyed		
	Other		
HFC-141b	Recovered		
	Destroyed		
	Other		
	None	0	
HFC-134a	Recovered		
	Destroyed		
	Other		
	None	0	
HFC-245fa	Recovered		
	Destroyed		
	Other		
	None	0	
Used Oil	Reclaimed		
	Recycled		
	Other		
	None	0	
Metal	Reclaimed		
	Recycled		
	Other		
	None	0	
Rubber	Reclaimed		
	Recycled		
	Other		
	None	0	
Plastic	Reclaimed		
	Recycled		
	Other		
	None	0	
PSE-Containing Equipment	Reclaimed		
	Recycled		
	Other		
	None	0	

\*Foam-blowing agent typically represents only 10% of the total foam weight.

**C. Energy Savings**  
Please complete the table below if your program provides an incentive (e.g., financial) to encourage the disposal of old, working refrigerated appliances.

Average Number of Remaining Years of Useful Life	Average Energy Consumed Year (kWh)

Average Energy Cost for Residential Consumers (\$/kWh) (please include the average cost during the current program period)

Additional Comments:

Revised 1/2012

# Reminders for Proper Reporting

- Step 4 (units jointly processed):
  - To avoid double-counting of program benefits, track and report data on units handled jointly by you and other RAD partners

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**Step 4: Units Handled Jointly by Your Organization and Another RAD Partner**

Instructions: Complete this page if you partner with another RAD Utility, Retailer, or Manufacturer Partner to jointly process/administer any of your units. The number of units should be reported by partner, in columns D through H. When reporting the units by refrigerant type and blowing agent type, report only the units processed with refrigerant recovery and foam recovery, respectively. If your program jointly processed units with more than five partners, please add additional columns as needed. This information is important for ensuring that no units are double-counted when calculating aggregate nationwide benefits achieved by RAD partners. When populating cells, please use the units provided; do not add text to specify units. If you wish to provide further information, please use the space for "Additional Comments" at the bottom of this worksheet.

**Refrigerators**

Name of RAD Partner that Jointly Processes Your Units	Partner #1	Partner #2	Partner #3	Partner #4	Partner #5	Total Number Jointly Processed
Total Number of Units Jointly Processed						0
Number of Units Jointly Processed with Refrigerant Recovery						
HFC-12						0
HFC-134a						0
Other						0
Total	0	0	0	0	0	0
Number of Units Jointly Processed with Foam Recovery						
HFC-11 Blowing Agent						0
HFC-141b Blowing Agent						0
HFC-124a Blowing Agent						0
HFC-245fa Blowing Agent						0
Cyclopentane Blowing Agent						0
Fiberglass						0
Other						0
Total	0	0	0	0	0	0

**Stand-Alone Freezers**

Name of RAD Partner that Jointly Processes Your Units	Partner #1	Partner #2	Partner #3	Partner #4	Partner #5	Total Number Jointly Processed
Total Number of Units Jointly Processed						0
Number of Units Jointly Processed with Refrigerant Recovery						
HFC-12						0
HFC-22						0
HFC-134a						0
Other						0
Total	0	0	0	0	0	0
Number of Units Jointly Processed with Foam Recovery						
HFC-11 Blowing Agent						0
HFC-141b Blowing Agent						0
HFC-124a Blowing Agent						0
HFC-245fa Blowing Agent						0
Cyclopentane Blowing Agent						0
Fiberglass						0
Other						0
Total	0	0	0	0	0	0

**Air-Conditioning Units**

Name of RAD Partner that Jointly Processes Your Units	Partner #1	Partner #2	Partner #3	Partner #4	Partner #5	Total Number Jointly Processed
Total Number of Units Jointly Processed						0
Number of Units Jointly Processed with Refrigerant Recovery						
HFC-22						0
R-407C						0
R-410A						0
Other						0
Total	0	0	0	0	0	0

**Dehumidifiers**

Name of RAD Partner that Jointly Processes Your Units	Partner #1	Partner #2	Partner #3	Partner #4	Partner #5	Total Number Jointly Processed
Total Number of Units Jointly Processed						0
Number of Units Jointly Processed with Refrigerant Recovery						
HFC-12						0
HFC-22						0
HFC-134a						0
R-500						0
R-410A						0
Other						0
Total	0	0	0	0	0	0

**Additional Comments:**



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# Reminders for Proper Reporting

- Step 5 (input data summary):
  - Review your program averages and compare to the typical range in comments as quality assurance

Average Amounts Typically Reported by Partners

Amount Per Unit	Refrigerators	Freezers	AC Units	Dehumidifiers
Refrigerant (lb)	0.2-0.5	0.1-0.6	0.5-1	0.3-0.5
Blowing Agent (lb)	0.6-1	0.6-1	NA	NA
Ferrous Metal (lb)	120-140	125-140	65-75	18-28
Non-Ferrous Metal (lb)	5-7	5-7	10-15	4-7
PCB Capacitors (#)	<1	<1	<1	<1
Mercury Components (#)	NA	<1	NA	NA
Used Oil (gal)	≤0.1	≤0.1	≤0.4	≤0.4
Plastic (lb)	11-20	11-30	2-5	4-8
Glass (lb)	3-6	NA	NA	NA

## Step 5: Summary of Input Data for Quality Assurance

Instructions: Review the input data summarized in the table below to ensure that the data entered in the Step 3 worksheets are error-free. The table below presents the calculated average quantities of refrigerant, foam-blowing agent, and durable materials recovered per appliance and is self-populated based on the activity data reported in the Step 3 worksheet(s). The typical range reported by partners in previous years can be displayed in comments by holding your cursor over each cell, and should be used as guidance to identify potential reporting errors in the Step 3 worksheet(s).

Average Quantity Recovered Per Unit, Calculated Based on Reported Total Quantity and Number of Units Processed

	Appliance Type			
	Refrigerators	Stand-Alone Freezers	Air-Conditioning Units	Dehumidifiers
Number of Units	0	0	0	0
Refrigerant (lb)*				
CFC-12			NA	
HCFC-22	NA			
HFC-134a			NA	
R-500A	NA	NA	NA	
R-407C	NA	NA		NA
R-410A	NA	NA		
Average across all units				
Foam-Blowing Agent (lb)**				
CFC-11			NA	NA
HCFC-141b			NA	NA
HFC-134a			NA	NA
HFC-245fa			NA	NA
Average across all units			NA	NA
Durable Materials				
Used oil (gal)				
Ferrous metals (lb)				
Non-ferrous metals (lb)				
Plastic (lb)				
Glass (lb)		NA	NA	NA
Number of PCB-containing capacitors				
Number of Mercury-containing components	NA		NA	NA




\*Average calculated based on reported number of units processed with refrigerant recovery.

\*\*Average calculated based on reported number of units processed with foam recovery.

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# Reminders for Proper Reporting

- Step 6 (partner feedback):
  - Don't forget to tell us about your program and how we can improve RAD!
  - Attach high-resolution 2012 event/campaign photos for consideration in the Annual Report

<p><b>Question #1</b> As part of your appliance recycling program, have you undertaken any innovative activities during the year to promote the safe disposal of appliances and/or raise consumer awareness? Please describe. You may also send any photos along with this reporting form at the time of submission.</p>	
<p><b>Question #2</b> As a RAD Partner, what are the greatest benefits that you've realized through the Program?</p>	
<p><b>Question #3</b> Do you have any suggestions for how the RAD Program can be improved?</p>	



# Questions & Answers

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# Contact Information

## **Melissa Fiffer**

U.S. EPA RAD Program

(202) 343-9464

[Fiffer.Melissa@epa.gov](mailto:Fiffer.Melissa@epa.gov)

## **For technical reporting support:**

## **Jenny Tanphanich**

(415) 677-7108

[Jenny.Tanphanich@icfi.com](mailto:Jenny.Tanphanich@icfi.com)



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