# RAD Annual Reporting 2017 Training Webinar

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January 9, 2018



### Agenda

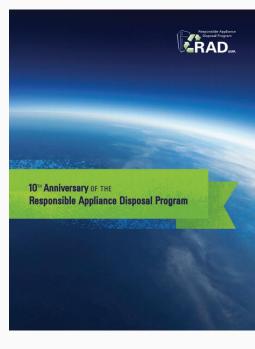


- Introduction
- Overview of Reporting Form
- Demo
- Questions & Answers

### Introduction



- Importance of reporting
  - Partner and program benefits
  - 10<sup>th</sup> Anniversary RAD report available at: <u>https://www.epa.gov/rad/10th-anniversary-</u> <u>responsible-appliance-disposal-program-report</u>
- How to report
  - Form emailed to partners on January 2
  - Forms due to EPA by Wednesday, January 31





### Instructions and Definitions

#### INSTRUCTIONS

Form

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 DEFINITIONS

#### Step 3: Activity Data on Processed Uni Complete a Step 3 worksheet for each : There are separate worksheets for Refri appliance processed by your program, ( materials/components recovered from the

Step 4: Units Handled Jointly by Your Complete this worksheet if any applianc units by refrigerant type and blowing aq

#### Step 5: Summary of Input Data for Qua

 a) Review Step 5 Summary of Input Da is accurate. This worksheet is used
 b) Review Step 5 Summary of Program Removal of Old Units worksheets to c) Review Step 5 Key Messages and F help

vou promote the benefits achieved b Step 6: Partner Feedback

Provide qualitative information on your p

#### Step 7: Confirmation

Check and sign a statement confirming

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 all of the specifications in appendix A to 40 CFR part 82, subpart F (based on ARI Standard 700-1995, Specification for Fluorocarbons and Other Refrigerants), and to verify using the analytical methodology prescribed in section 5 of appendix A of 40 CFR part 82, subpart F.

Stockpiling with Intent to Reclaim: To store refrigerant or foam-blowing agent on-site at the recycling facility where the unit was processed with the intent of later reclaiming the substance(s).

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.

Stockpiling with Intent to Destroy: To store refrigerant or foam-blowing agent on-site at the recycling facility where the unit was processed with the intent of later destroying the substance(s).

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.



Step 1: Contact and Program Information

<b>EPA</b>	EPA ENVIRONMENTAL PROTECTION AGENCY Washington, DC 20460								
structions: Provide	tact and Program Information your contact and program information (Tables A and B) on this p	lage.							
Name of RAD Partner:		Reporting Period:	1/1/2017	to	12/31/2017				
Primary Contact:		Alternate Contact:							
	Gabrielle Jette 1725 Eye St. NW Suite 1000		Christine Gajewski 1725 Eye St. NW Suite 1000						
Fax	202-862-1249 gabrielle.jette@icf.com	Fax	202-862-1169 christine.gajewski@io	cf.com					
3. Program Info	rmation								
Please select the RA	D partner category your program falls unc Utility	1							
How many househol	lds are in the area served by your program1,000	1							
Indicate which appli	ance types are included in your program: Refrigerators Stand-Alone Freezers Air-Conditioning Units Dehumidifiers	Yes Complete Step 3	<ul> <li>Refrigerators worksheet</li> <li>Stand-Alone Freezers w</li> <li>Air-Conditioning Units w</li> </ul>	vorksheet					
Does your program	jointly process/administer some appliances with another RAD parts	n Yes Complete Step 3	- Units Jointly Processed	worksheet					
Does your program	provide an incentive (e.g., financial) to encourage disposal of old, appliances?	Yes   Complete Table	C in each Step 3 Activity [	Jata workshee	t				



- Step 2: Third-Party Information
  - Note: Please provide address of facilities where processing occurs, not head offices



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### 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	Refrigerant	Foam/Blowing	Mercury	Used Oil	PCBs
				Haul-Away	Recovery	Agent Recovery	Recovery	Recovery	Recovery
Example Company A	John Smith	123-456-7890	123 Street Name	x	X		X	X	x
Company 1	Mary Smith	123-456-7890	1 Main Street, Washington, DC 20007	x	x		x	x	x



- Step 3: Activity Data on Processed Units
  - Refrigerators, stand-alone freezers, air-conditioning units, dehumidifiers
  - If recovered refrigerant and/or blowing agent is kept in storage by the end of the reporting period, report as *stockpiling with intent to reclaim <u>or</u> destroy*
  - Use the comments section to provide additional information or clarifications

Total Number of Units Processed		1			
Average Age of Appliances Collected (yrs)					
Refrigerant Type	Total Number of Units Processed	Number of Units Processed with Refrigerant Recovery	Refrigerant Type Based On:		Comments:
CFC-12					
HFC-134a					
Other					
Total	0	0			
Insulating Material Type	Total Number of Units Processed	Number of Units Processed with Foam Recovery	Was Foam Recovered From Appliance Doors?	Insulating Material Type Based On:	Comments:
CFC-11 Blowing Agent					
HCFC-141b Blowing Agent					
HFC-134a Blowing Agent					
HFC-245fa Blowing Agent					
Cyclopentane Blowing Agent					
Fiberglass					
Other					
Total	0	0			



- 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

				Click Here to Add Additional Partner Columns		
Refrigerators	Partner #1	Partner #2	Partner #3	Partner #4	Partner #5	
Name of RAD Partner that Jointly Processes Your Units						Total Number Jointly Processed
Total Number of Units Jointly Processed						0
	Number of U	nits Jointly Processe	ed with Refrigera	nt Recovery		
CFC-12						0
HFC-134a						0
Other						0
Total	0	0	0	0	0	0
	Number o	f Units Jointly Proce	ssed with Foam I	Recovery		
CFC-11 Blowing Agent						0
HCFC-141b Blowing Agent						0
HFC-134a Blowing Agent						0
HFC-245fa Blowing Agent						0
Cyclopentane Blowing Agent						0
Fiberglass						0
Other						0
Total	0	0	0	0	0	0



### Step 5: Quality Assurance

 Input data summary: Review your program averages and compare to the typical range as quality assurance

Amount Per Unit	Refrigerators	Freezers	AC Units	Dehumidifiers
Refrigerant (lb)	0.2-0.5	0.1-0.6	0.5-1	0.3-0.6
Blowing Agent (lb)	0.6-1.2	0.6-1	NA	NA
Ferrous Metal (Ib)	120-140	125-140	65-75	18-28
Non-Ferrous Metal (Ib)	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 (Ib)	11-50	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

		Applian	се Туре	
		Stand-Alone	Air-Conditioning	
	Refrigerators	Freezers	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 (Ib)**				
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 (Ib)				
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.

Step 5: Results



Form

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### Step 5: Summary of Program's Environmental Benefits

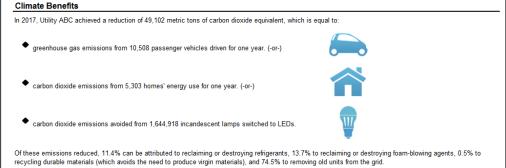
Instructions: No action is required. The tables below are for reference only and are self-populated based of the Step 3 worksheet(s).

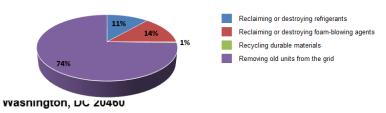
#### Emissions Avoided

The table below presents the cumulative avoided emissions of greenhouse gas and ozone depleting subs program. It is calculated based on assumptions of destruction and reclamation efficiencies developed by t Note: It is assumed that removing units from the electricity grid will only result in environmental benefits if y incentive to retire old, working appliances. In addition, the estimated ozone and greenhouse gas benefits a releases of refrigerant and foam-blowing agent are subject to change as more information becomes availa rates associated with various recovery technologies and practices baseline emissions global warming pol



### ENVIRON





Appliance Component

#### Refrigerant

CFC-12 Reclaimed HCEC-22 Reclaimed HFC-134a Reclaimed R-500 Reclaimed R-407C Reclaimed R-410A Reclaimed

Reclaimed CFC-12 Stockpiling with Intent to Reclaim HCFC-22 Stockpiling with Intent to Reclai HFC-134a Stockpiling with Intent to Reclai R-500 Stockpiling with Intent to Reclaim R-407C Stockpiling with Intent to Reclaim R-410A Stockpiling with Intent to Reclaim Stockpiling with Intent to Reclaim

### Step 5: Summary of Program's Gross Energy Impacts from Removal of Old Units (Current Period Dollars)

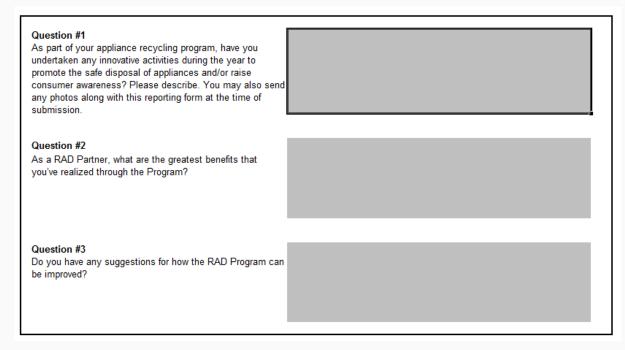
Instructions: No action is required. The table below is for reference only and is self-populated if data are entered in the Step 3 worksheet Energy Savings tables. Data in the table below apply to the current reporting period.

Utility ABC	1/1/2017	to 12/31/2017	
Appliance Type	Total # of Units Processed	Total Saved Energy (kWh)	Total Savings to Residential Consumers (\$)
Refrigerators	0	0.0	\$0.00
Stand Alone Freezers	10,000	47,378,221.2	\$3,790,257.70
Air-Conditioning Units	800	1,760,000.0	\$140,800.00
Dehumidifiers	0	0.0	\$0.00
Total	10,800	49,138,221.2	\$3,931,057.70

Revised 12/2017



- Step 6: Partner feedback
  - Don't forget to tell us about your program and how we can improve RAD!
  - Include high-resolution 2017 event/campaign photos in your email response for consideration in the Annual Report





### Step 7: Confirmation

# ENVIRONMENTAL PROTECTION AGENCY

### Washington, DC 20460

### Step 7: Confirmation

Instructions: Prior to submitting this form, please review all Step 3 worksheet(s) and Step 5 QA Input Data Summary worksheet and confirm below that the information is accurate, to the best of your knowledge. Your name and date must be entered into the cells below in order for this form to be considered complete.

I certify that I have personally examined and am familiar with the information submitted in this report, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name			MM/DD/YYYY	
Revised 12/2017	Name Please type your name to complete the certification.			

## **Reporting Form Demo**





### **Questions & Answers**

### **Contact Information**







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