RAD Annual Reporting
2016 Training Webinar

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Agenda

- Introduction
- Overview of Reporting Form
- 2016 Updates
- Demo
- Reminders for Proper Reporting
- Questions & Answers

Introduction

- Importance of reporting
  - Partner and program benefits
  - Annual RAD report available at https://www.epa.gov/rad/responsible-appliance-disposal-program-2015-annual-report
- How to report
  - Electronic reporting forms available at https://www.epa.gov/rad/rad-annual-reporting-form
  - Forms due to EPA by January 31

Overview of Annual Reporting Form

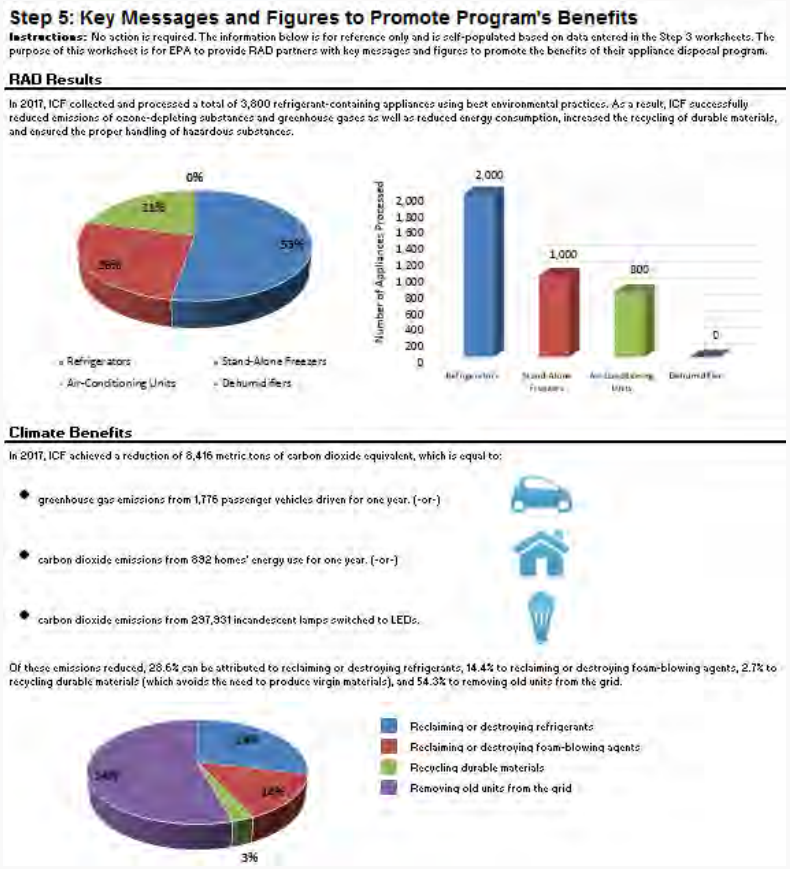
- 7 Steps:
  - Step 1: Contact and Program Information
  - Step 2: Third-Party Information
  - Step 3: Activity Data on Processed Units
    - Refrigerators
    - Stand-Alone Freezers
    - Air-Conditioning Units
    - Dehumidifiers

Overview of Annual Reporting Form (cont'd)

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

2016 Updates

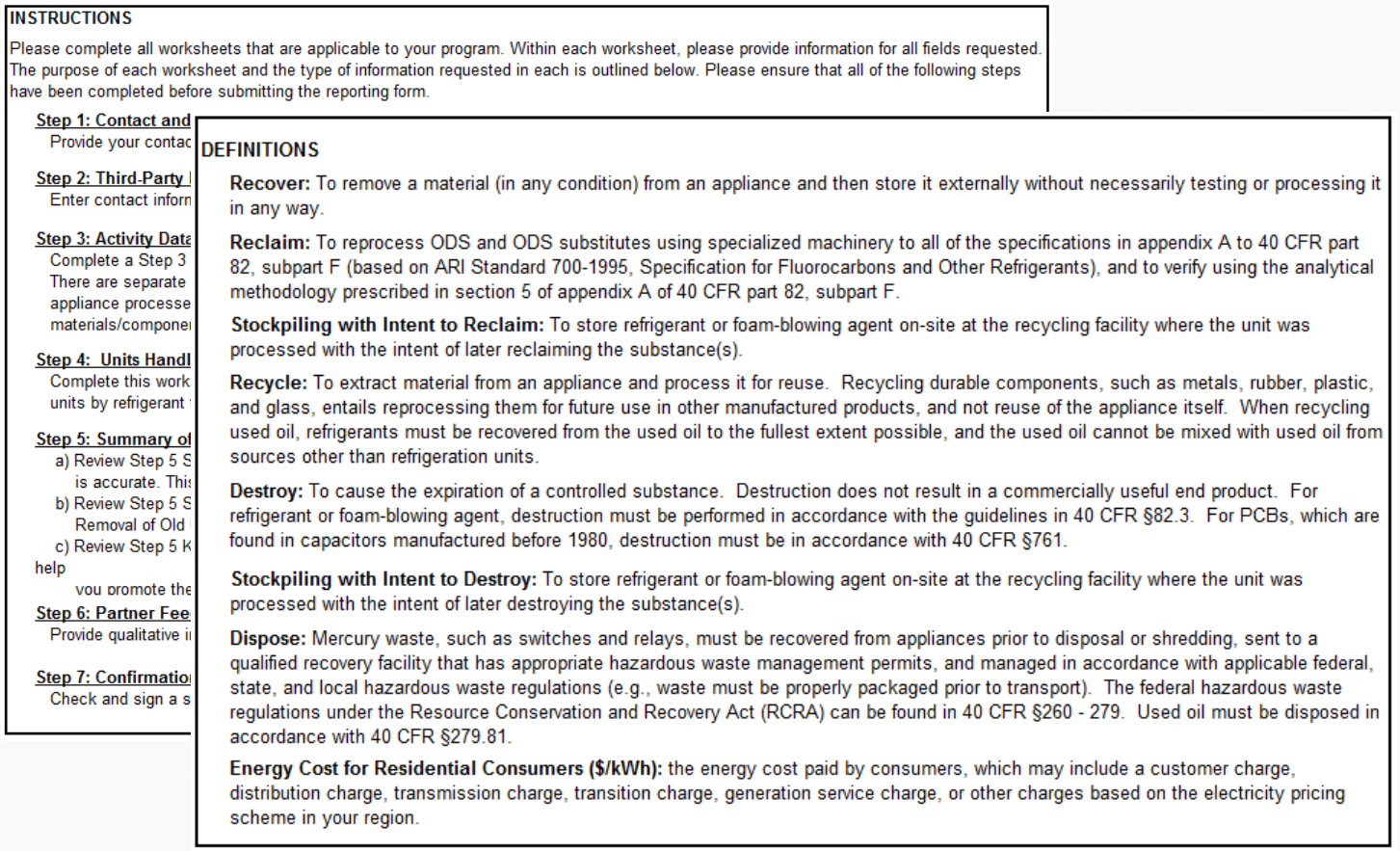
- Added a new Step-5 tab called “Benefits Messaging” to provide partners with key messages and figures to promote the benefits of their appliance recycling programs.



Reporting Form Demo

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
Provide your contac

Step 2: Third-Party
Enter contact inforn

Step 3: Activity Data
Complete a Step 3
There are separate
appliance processe
materials/compone

Step 4: Units Handl
Complete this work
units by refrigerant

Step 5: Summary of
a) Review Step 5 S
is accurate. This
b) Review Step 5 S
Removal of Old
c) Review Step 5 K
help
you promote the

Step 6: Partner Fee
Provide qualitative i

Step 7: Confirmatio
Check and sign a s

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 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.

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 recovered refrigerant and/or blowing agent is kept in storage by the end of the reporting period, report as *stockpiling with intent to reclaim or destroy*
  - Make sure the total number of units processed with refrigerant/blowing agent type specified matches the total number of units processed
  - Use the comments section to provide additional information or clarifications

Total Number of Units Processed					
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			

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

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 Units Jointly Processed with Refrigerant Recovery						
CFC-12						0
HFC-134a						0
Other						0
Total	0	0	0	0	0	0
Number of Units Jointly Processed with Foam 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

Reminders for Proper Reporting

- Step 5 (input data summary):
  - Review your program averages and compare to the typical range in comments 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 (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)	11-50	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

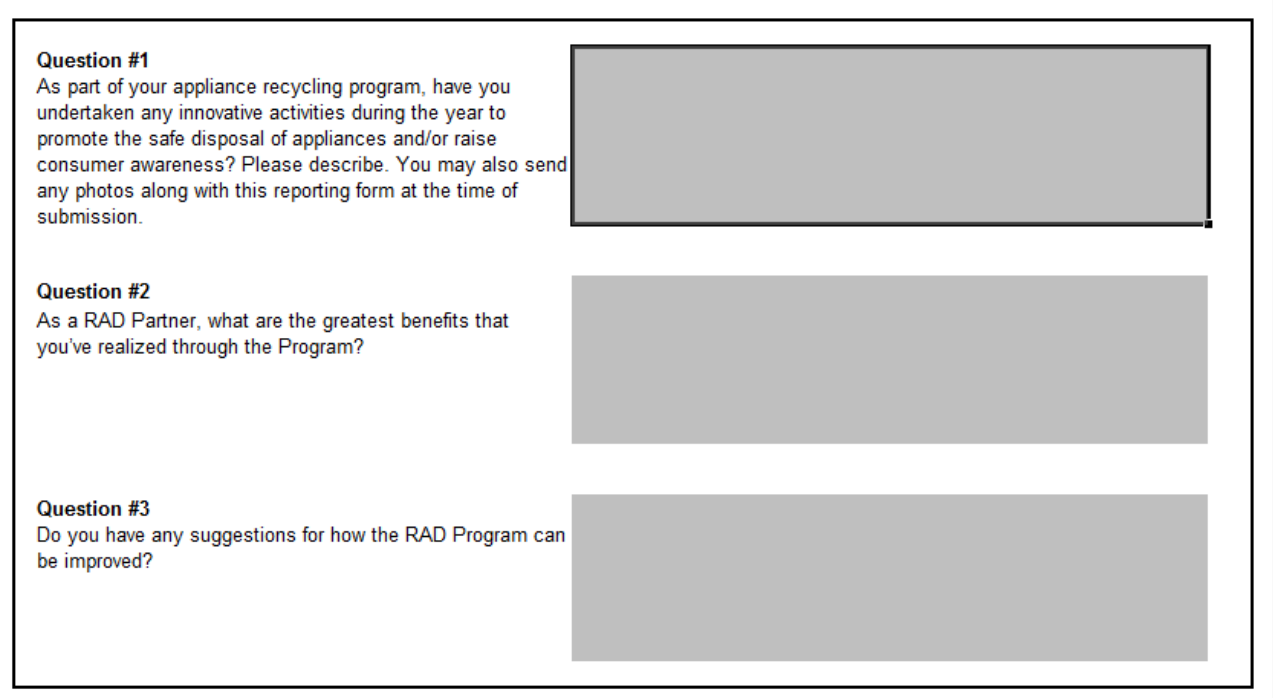
	Appliance Type			
	Refrigerators	Stand-Alone Freezers	Air-Conditioning Units	Dehumidifiers
Number of Units	0	0	0	0
Refrigerant (lb)*				
CFC-12			NA	
HCFC-22	NA			
HFC-134a			NA	
R-500A	NA	NA	NA	
R-407C	NA	NA		NA
R-410A	NA	NA		
Average across all units				
Foam-Blowing Agent (lb)**				
CFC-11			NA	NA
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.

Reminders for Proper Reporting

- Step 6 (partner feedback):
  - Don’t forget to tell us about your program and how we can improve RAD!
  - Include high-resolution 2016 event/campaign photos in your email response for consideration in the Annual Report



Question #1
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.

Question #2
As a RAD Partner, what are the greatest benefits that you've realized through the Program?

Question #3
Do you have any suggestions for how the RAD Program can be improved?

Questions & Answers

Contact Information

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