ENERGY STAR Commercial Food Service Webinar Series

Spotlight on EPA's Responsible Appliance Disposal (RAD) Program

Tuesday, November 16, 2021
Stakeholder Breakdown

- Registrations for today’s webinar include:
  - Product Brand Owners
  - EEPS/Utilities
  - Other
  - Implementers
  - Dealers/Distributors
  - Associations
  - Operators
Introduction to Monthly CFS Webinar Series

Webinars are an opportunity for Partners/Stakeholders:

► To hear news on the latest CFS events, activities, and initiatives at ENERGY STAR
► To learn about program engagement resources and tips
► To engage with ENERGY STAR and each other on industry topics and energy-savings
► To provide feedback on any information gaps and inform the development of new resources
EPA’s Responsible Appliance Disposal (RAD) Program
Welcome!

Background

What is RAD?

RAD Process

Why should you join?

What are the benefits?
Background

- It is estimated that more than 13 million refrigerators/freezers are disposed of annually in the U.S.

- Federal Law requires refrigerants are recovered prior to disposal but does not require appliance foam blowing agents to be recovered.

- Foam containing ozone-depleting substances (ODS) and greenhouse gases (GHGs) (e.g., hydrofluorocarbons [HFCs]) in refrigeration units contribute to ozone depletion and climate change.

- Responsible Appliance Disposal (RAD) Program encourages proper handling of appliance foam.
Responsible Appliance Disposal (RAD) Program

What is RAD?

- Voluntary partnership program to dispose of old refrigerated appliances using best environmental practices available - going beyond federal requirements to protect Earth’s climate and ozone layer.

This means:

- 🛡 Complying with laws on the recovery of refrigerant, used oil, and PCBs
- 🌩 Recovering appliance foam
- 🔄 Promoting recycling of all durable goods
- ⚡ Promoting the permanent retirement of old, inefficient appliances to save energy
RAD Process

1. Partners collect refrigerated appliances
   - Some offer rebates or cash for recycling

2. Recyclers dispose of foam product at qualified destruction facilities

How Does RAD Work?

1. RAD partners collect used refrigerated appliances from consumers.
2. RAD partners work with recyclers to ensure that used appliances are disposed of according to best environmental practices.
RAD Partners and Affiliates
Celebrating 15 Years of RAD

Inaugural RAD Leadership Awards Program

In 2020, the RAD program launched its Leadership Awards to recognize high-achieving RAD Partners for their accomplishments in reducing emissions of ozone-depleting substances (ODS) and greenhouse gases (GHG) through insulation foam recovery. The RAD Leadership Awards Program contains three categories of recognition – RAD Champion, RAD Program Growth, and RAD Ambassador – and winners are determined based on an evaluation of both quantitative and qualitative metrics.

Joining the RAD Program is a win-win for partners’ organizations and the environment! RAD Partners are publicly recognized by EPA and provided with an array of tools and resources related to responsible appliance disposal including case studies, guidance documents and fact sheets, and materials communicating the benefits of RAD. Additionally, RAD supports partners in achieving and tracking their environment benefits within the reporting process, annual reports, and cumulative partners statistics, which help partners document their achievements and benchmark progress made over time. The RAD Program provides its partners, recyclers, and affiliates with access to a national network of like-minded organizations and the use of the EPA RAD logo on their respective marketing materials and communications. Use of the RAD logo distinguishes RAD Partners’ organization as industry leaders and demonstrates to others how they are protecting the environment and supporting communities. Recently, the RAD Program and its partners have been working to identify opportunities for RAD to promote environmental justice and broaden awareness of the benefits of responsible appliance disposal. As a first step, RAD developed a community outreach flyer, translated key marketing materials into Spanish, and hosted a Partner-wide discussion on environmental justice. In addition, RAD launched its Leadership Awards program, which recognizes high-achieving partners for: attaining the highest reductions in emissions of ozone-depleting substances and GHGs through insulation foam recovery; significant growth of their appliance recycling program; and demonstrating a notable commitment to advancing the goals of the RAD Program.
Why Join?

► RAD Partners are **publicly recognized** by EPA for:
  • Protecting the ozone layer and reducing GHG emissions
  • Saving landfill space and energy by recycling rather than landfilling durable materials
  • Keeping communities safe by avoiding the release of used oil, mercury, and PCBs
Benefits of Partnership

- **Benefits tracking** - EPA helps RAD partners calculate annual and cumulative program benefits.

- **Access to EPA RAD logo**
  - Distinguish your organization as an industry leader
  - Show others how you are protecting the environment and benefiting communities
  - Communicate your environmental commitment to consumers, customers, and other target audiences

- **Annual RAD Leadership Awards** recognize high-achieving Partners for their accomplishments in reducing emissions of ODS and GHGs through insulation foam recovery.
Benefits of Partnerships

▶ Tools and Resources

- Partner case studies
- Disposal and recycling fact sheets
- Guidance documents
- Materials communicating the benefits of RAD
Benefits of Partnerships

Access to National Network

- Exchange information and best practices with other partners
- Build relationships with industry peers
- Participate in partner-only webinars and meetings
- Leverage RAD partnerships to make your program more efficient and effective
RAD Leadership Awards

RAD Leadership Awards are given in three categories of recognition:

- The **RAD Champion Award** recognizes the top 10 Partners with the highest percentage of units collected processed with foam recovery.
- The **RAD Program Growth Award** recognizes the Partners with the greatest increase in collection rates within the last year.
- The **RAD Ambassador Award** recognizes a Partner with exemplary practices that reflect the goals of the RAD program, including launching innovative programs or campaigns that raise awareness about the importance of responsible appliance disposal.

This year’s RAD Leadership Awards ceremony will take place during the Annual Partner Meeting **tomorrow, November 17 beginning at 3 pm ET**.

- 14 RAD Partners will be receiving Leadership Awards.
In 2020 RAD Partners collected:

- **306,537** Refrigerators
- **13,255** AC Units
- **9,637** Dehumidifiers
- **39,364** Stand-alone Freezers

### 2020 and Cumulative RAD Partner Achievements

<table>
<thead>
<tr>
<th></th>
<th>2020 Benefits</th>
<th>Cumulative Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Properly Handled Hazardous Waste</strong></td>
<td>Properly disposed of:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>25,000 Gallons of used oil</td>
<td>833,000 Gallons of used oil</td>
</tr>
<tr>
<td></td>
<td>8,000 Mercury-containing components</td>
<td>216,000 Mercury-containing components</td>
</tr>
<tr>
<td><strong>Reduced Greenhouse Gas Emissions</strong></td>
<td>Achieved a reduction of:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.7 Million Metric tons carbon dioxide equivalent (MTCO₂ eq)</td>
<td>40.0 Million MTCO₂ eq</td>
</tr>
<tr>
<td><strong>Ozone Layer Protection</strong></td>
<td>Avoided the release of:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>47 Ozone Depletion Potential (ODP)-weighted tons</td>
<td>1,989 ODP-weighted tons</td>
</tr>
<tr>
<td><strong>Durable Material Recycling</strong></td>
<td>Recycled rather than landfilled:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>59 Million pounds of durable material</td>
<td>1,524 Million pounds of durable material</td>
</tr>
<tr>
<td><strong>Energy Savings</strong></td>
<td>Reduced energy use by:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.8 Billion kWh</td>
<td>31.3 Billion kWh</td>
</tr>
</tbody>
</table>
RAD partners have processed more than **9.3 million** units since program inception, resulting in environmental benefits equivalent to:

- **Greenhouse gas emissions from 8.7 million** passenger vehicles driven for one year.
- **Carbon dioxide emissions from 7.3 million** homes’ electricity use for one year.
- **Carbon sequestered by 49 million acres** of U.S. forests in one year.
- **Greenhouse gas emissions avoided by 13.6 million tons** of waste recycled instead of landfilled.
Opportunities for RAD

- Recruit new Partners and Affiliates
- Increase direct consumer engagement
- Explore point-of-sale marketing materials that encourage RAD recycling and explain its benefits
- Explore retailer direct-to-consumer RAD promotion
- Investigate new program models and possible pilots
Opportunities for RAD - Commercial Refrigeration

- Commercial refrigeration equipment containing insulation foam includes:
  - Kitchen-size refrigerators and freezers
  - Refrigerated food processing and dispensing equipment (e.g., ice cream dispensers, fountain soda dispensers)
  - Ice machines
  - Vending machines
  - Stand-alone equipment (e.g., reach-in coolers, ice cream freezers)
  - Water coolers
Opportunities for RAD - Commercial Refrigeration

- Equipment collection opportunities
  - Utilities/other RAD Partners can leverage existing infrastructure for residential appliance recycling programs (ARP) to incorporate commercial customers
  - Potential targets
    - Standard residential-sized refrigerators and freezers used in CFS establishments collected as an extension of a residential ARP
    - Equipment vendors/contractors (e.g., vending machine distributors, refrigeration vendor/contractors)
    - Chain stores/restaurants
Thank You!
For more information:

_Sally Hamlin_
RAD Program Manager
Hamlin.Sally@epa.gov
(404) 213-8924