Power capacitors recycling program

Eaton offers a comprehensive capacitor unit recycling program that includes onsite material pickup and supports all units regardless of age, original manufacturer or current condition.

Power capacitor unit recycling program:
Open to any unit, age, manufacturer, condition

At Eaton, we already focus on the numerous environmental variables within our direct control such as materials our designs consist of, efficiency of equipment we utilize and the water and energy consumption at our factories. With the power capacitor unit recycling program, we have expanded our sustainability focus to include end-of-life management for produced equipment.

How are the materials repurposed?

Material reuse will vary depending on unit construction, age and status. Typical unit recycling will leverage Eaton’s internal processes utilized to achieve zero-waste-to-landfill within the power capacitor manufacturing facility.

Recovery of capacitor dielectric fluid. This fluid is collected and introduced into re-refining operations where the material will become an ingredient in future oil-based products.

Metals such as the steel, stainless-steel, aluminum conductive plates and internal wires are sorted, shredded, melted and undergo purification processes. These raw materials are introduced into the commodities market for use in the manufacturing of steel or non-ferrous goods.

Porcelain bushings are recovered for beneficial reuses, one of which can be civil construction projects.

Miscellaneous materials are occasionally utilized in creating alternative engineered fuels. Materials are incinerated, but only if the heat generated by incineration is collected and used in order to create more energy than was required for the incineration process.

How to get started

• Complete Eaton’s request for quote (RFQ) form
• Eaton will review the form to ensure all necessary information is provided and will then complete quoting processes (typically 10-15 business days)
• The quote will be returned to the requester for review and acceptance
• Once the quote is approved, Eaton will coordinate pick-up logistics
• The requester should prepare the units per Eaton’s customer instruction document
• Once the material recycling is completed, the customer will be provided a certificate of recycling to confirm project completion
Recycling vendor information

It is critically important for customers to have confidence in the vendors they use to recycle their equipment, and to know that the processes followed are compliant and transparent. Eaton works with a national recycler with over 50 years of experience. This same recycler is utilized through various Eaton plants, including our Emerald Road facility’s waste management. This connection includes a comprehensive network of subcontractors throughout the continental US, who are approved for a variety of equipment recycling. Each subcontractor is assessed based on their approved work via a tiered risk level. For this recycling program, our subcontractors are held to a “High” risk rating which includes a rigorous assessment process.

Tasks include:
- Establish a scope of work for approved services
- Evaluation of all supplier capabilities and full review of the supplier service portfolio
- Supplier registration, Proof of Insurance, and W-9 documents are required to be completed in entirety

Upon completion of the initial documentation, an executed Master Services Agreement (MSA) and compliant Certificate of Insurance are required
- Supplier must possess the licenses and registrations required to operate in compliance of all environmental regulations
- A successful paper audit is completed: including supplier audit questionnaire, received registration document, received supplier audit documents, analyze and benchmark data to regulatory standards (i.e. Echo, Envirosite, etc.)
- Following the paper audit, a physical audit is completed alongside receipt of completed distributed documents, approval and system set up will commence
- Supplier re-audit/reassessments are conducted on select facilities based on frequency of utilization and volume

Examples of audit documents

Environmental documents
- RTK documentation
  - Tier II
  - Form R
- Agency inspections – 3 years
- Enforcement actions – 5 years
- Release reports – 5 years
- SPCC plan
- SWPPP and map
- Contingency plan and training
- Emission monitoring reports
- Groundwater monitoring reports
- Leachate monitoring reports
- Wastewater analysis and reporting
- Stormwater analysis and reporting
- Documentation of LDR monitoring
- Documentation of waste determinations
- RFI/site investigation
- Closure/post-closure plan
- Closure funding and financial assurance

Safety documents
- Reportable injury and illness Logs (in USA, OSHA 300 logs) for the past three years
- Job positions and required training
- Training records

Regulatory documents
- Part B permit and application
- Waste analysis plan
- Air permit
- NPDES permit – Stormwater
- Wastewater permit

General documents
- Audit package
- Process diagram
- ISO
  - Environmental policy
  - Audit documentation
  - Target and objectives
  - Aspects and impact analysis
- Security plan
- Maintenance program
- Internal inspections
- Inventory/production documentation
- List of storage units – Tanks, buildings, impounds, etc.
- Waste approval forms

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