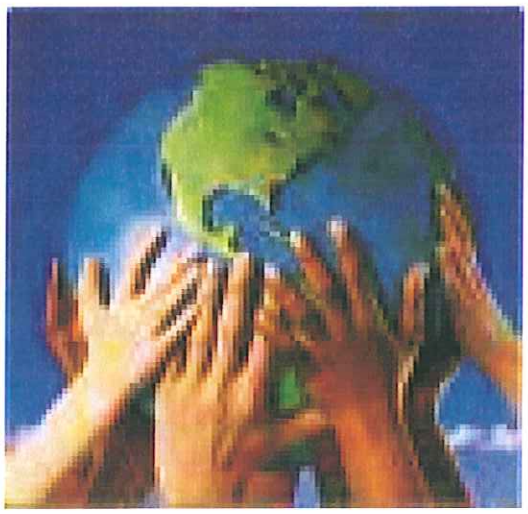


REDUCE

REUSE

RECYCLE

Hopewell Cogeneration Facility Recycle Program

Hopewell Cogeneration Facility (HCF) has recycled from the days of construction. However, until 2003 there was not a tracked and measured effort. In 2003 a database was constructed to improve the plant's waste tracking program. The database provided a means to track all items on annual and individual bases. Not only was it easier to compile records at the end of the year, but it gave a means to evaluate how different areas were doing. In 2003 HCF started building its Environmental Management System (EMS). As time has passed the EMS program has evolved into a mature working system and at the same time has brought attention to HCF's recycling program.

Year	Hazardous Waste	Universal Waste	Computers	Non-Hazardous Waste	Used Oil (in lbs)	Recycled Paper	Recycle Steel	Recycle Aluminum	Recycle Cardboard	Plastics & Glass	Ele n
1999	215	1,752	0	13,459	1,876	N/A	N/A	N/A	N/A	N/A	N/
2000	0	1,787	0	13,880	3,002	N/A	N/A	N/A	N/A	N/A	N/
2001	0	1,662	0	54,100	4,879	N/A	N/A	N/A	N/A	N/A	N/
2002	0	1,670	0	26,192	6,981	N/A	N/A	N/A	N/A	N/A	N/
2003	0	1,843	0	79,670	4,204	N/A	6,766	102	N/A	N/A	N/
2004	84	2,539	0	43,182	2,627	N/A	11,280	26	N/A	N/A	N/
2005	0	223	0	79,820	1,501	1,377	164,545	62	N/A	N/A	N/
2006	156	75	0	21,444	4,316	3,717	7,202	0	948	N/A	N/
2007	0	3,913	0	29,751	2,184	2,329	9,829	202	4,471	N/A	
2008	0	707	98	20,646	13,199	1,306	29,880	32	2,552	57	
2009*	< 1.0	1,163	400	13,574	1,509	2,685	14,090	142	2,629	316	2:

* 2009 is only January to November 23, 2009. Other recycled material not shown; CD's 0 lbs, Coffee grounds 388 lbs, Ink cartridges 32 lbs.

From the matrix waste was tracked for only the required areas; Hazardous, Non-Hazardous, Universal, and Used Oil. In 2003 the database allowed the tracking of metal sent to the recycler in the form of steal and aluminum. Other metals are tracked, but are not broken out on the matrix. In 2005 paper recycling started, the next year cardboard was added. Ink cartridges were began collecting in 2005. In 2007 electronics was established. 2008 began the plastics, CD disk, glass, and computer recycling. In 2009 there was a movement to do more for the community. Cell phones and electronics were collected. Ink cartridges were given to a youth group, and cell phones were collected for "Cell Phones for Soldiers". This effort yielded about 100 minutes for the troops. Electronic recycling was open to the community and over a ton was kept from landfills.

2008 involved a great deal of maintenance, far more than any other years before. The plant worked together to push the recycling effort to a new high. Because of all the maintenance the chance to mount a monumental recycling effort may not come again for another 10 to 20 years. For 2009 the maintenance was not as great as the year before, but because of efforts in other areas the percent of recycled material was increased.

The program is more than just recycling and more than just numbers of lbs. The concept of Reduce, Reuse, and Recycle continues to grow within the plant.

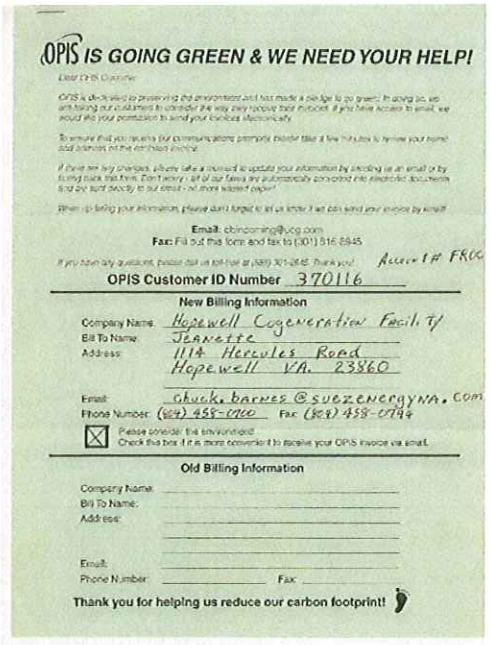
Reduce:

- A new copy machine for 2009 has been set with the default setting of double sided printing. With the number of environmental and other reports sent out every month the double sided printing has reduced paper usage and weight of shipping. The new copy machine also has a scan feature where a report can be scanned into a PDF file. By doing this, copies can be kept in the plant computer and paper files can be reduced.

- HCF has taken advantage of all on line submissions. For example by using the E-DMR, the monthly water report can be sent in and work sheets are retained along with the electronic receipt. This will save about 20 pages per month just on this one report.

- About every 5 years the plant has to replace the gas turbine inlet air filters. Each filter is wrapped in plastic, placed in a cardboard box; four are place on a pallet and shrink wrapped in place. Talks with the manufacture reduced the cardboard boxes. This saves HCF $160.00 and all that cardboard. It reduces the shipping weight. To get an idea how much there is, it take three tractor trailer rigs to deliver the filters.

- In 2007 a new type of hydraulic fluid was purchased. This replaced the hazardous fluid and removed an item that had to be shipped off as hazardous waste. The new fluid can be added to the used oil and be recycled.
- Aerosol cans are punctured and with an in house made crusher they are compacted and recycled as steel. This reduce the overall amount, the fluid from some of the types of material is purchased in bulk and dispensed in reusable containers.
- Another small reduction comes with renewals on line vice having paper and envelopes mailed.



OPIS IS GOING GREEN & WE NEED YOUR HELP!

Email: cbincoming@ucg.com
Fax: Fill out this form and fax to (301) 816-8945

Account # FROC

OPIS Customer ID Number 370116

New Billing Information

Company Name: Hopewell Cogeneration Facility
Bill To Name: Jeanette
Address: 1114 Hercules Road
Hopewell VA. 23860

Email: chuck.barnes@suezenergyna.com
Phone Number: (804) 458-0700 Fax: (804) 458-0794

☒ Please consider the environment!
Check this box if it is more convenient to receive your OPIS invoice via email.

Old Billing Information

Company Name:
Bill To Name:
Address:

Email:
Phone Number: Fax:

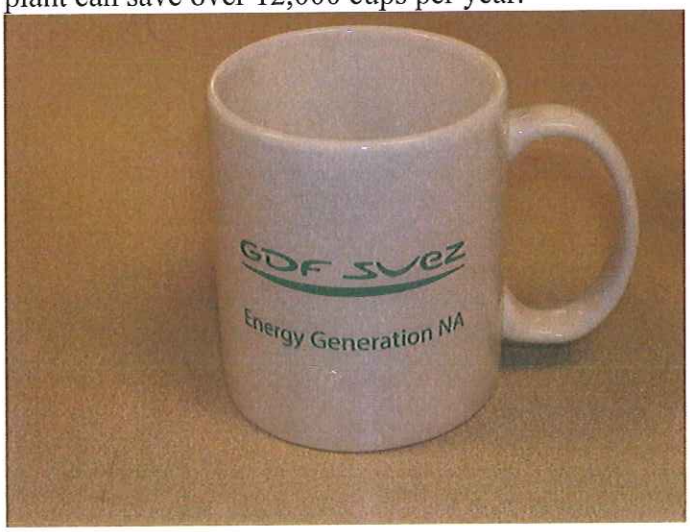
Thank you for helping us reduce our carbon footprint!

- Over the years catalog stores send as many as 10 catalogs to the same plant. As out administrative assistant/storekeeper notes the companies and when contacting them, ask them to reduce the number of catalogs sent. Employee's makings pickups at these stores will check catalog names to reduce the ones who no longer work here or do not need the catalog.
- Starting in 2008 building air conditioners are being changed out. This will eliminate R-22 with the more favorable R-134A. The old units will be scraped/recycled for the metal. HCF has not received the weight of metal salvaged

New unit being brought in. Old unit on the driveway and the new one being lifted to the roof.

- This packing of resin is preferred. After use the cardboard drums are crushed and placed in the cardboard dumpster. The tops are plastic and can be recycled. The metal band at the top is steel and is removed and placed with the other recycle metals.

Early in 2009 mugs were purchased for all employees plus extras. This was to reduce the use of Styrofoam cups. It is estimated with the 22 employees plus visitors that the plant can save over 12,000 cups per year.



Reuse:

- Boxes that are received are retained so that they can be reused and new ones do not have to be purchased.

- Packing material is retained in our warehouse area and reused whenever possible.

- Pallets are also retained and reused; if the amount gets too great then some are recycled.

Recycling:

- Toner Cartridges recycling found in the copy room next to one of the paper recycling boxes. The Toner Cartridge Program donated to one of the local schools which yielded them a little over $300.00. By doing this both the environment and the school system benefits.
- In 2009 about the same number of cartridges were given to a church youth group to help with their community activities.

Enon Elementary School PTA
2001 East Hundred Road
Chester, VA 23836
Tax ID # 54-1335360

January 29, 2008

Dear Mr. Joe Ennas,

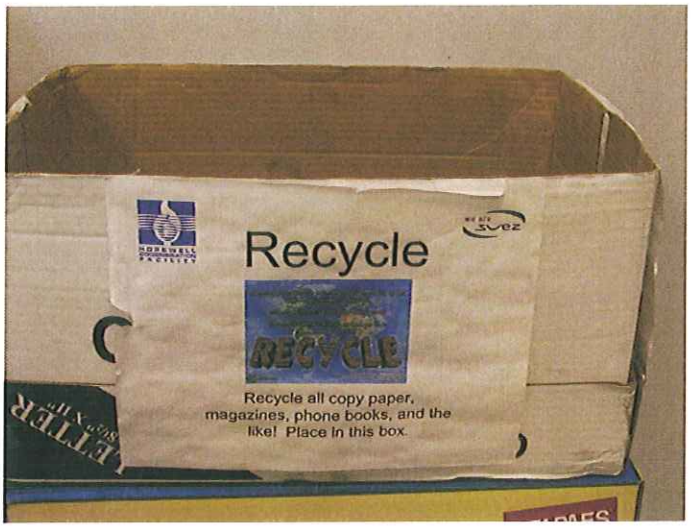
On behalf of the Enon PTA I would like to thank you for your donation of 13.2 pounds of ink cartridges from your company, Hopewell Congeneration Facilities. Until Monday we did not have a program in place but thanks to your generosity we have enrolled in Cartridges for Kids. Please watch your child's take home folder in the next few weeks for a flyer explaining the program.

We sincerely thank you for this donation.

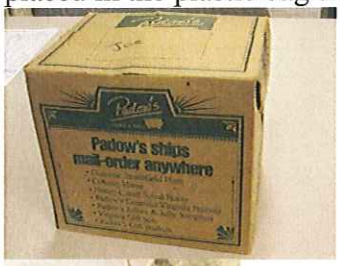
Yours truly,

Gwen Z Cook

Gwen Z Cook
Enon Elementary
PTA President

- 

Paper recycling started in 2005 and had been doing well every year. There is a constant effort to recycle as much paper as possible and at the same time reduce the amount of paper used. In this effort HCF has began to look at activities and what can be done. For example; during safety training the plant buys lunch. The box lunches are brought in cardboard boxes and plastic bags. The drink containers are recycled into glass, plastic, or aluminum can recycle bins. The boxes are flattened and put with the recycled paper. The food is consumed and any waste paper etc. it placed in the plastic bag the boxes came in and discarded.



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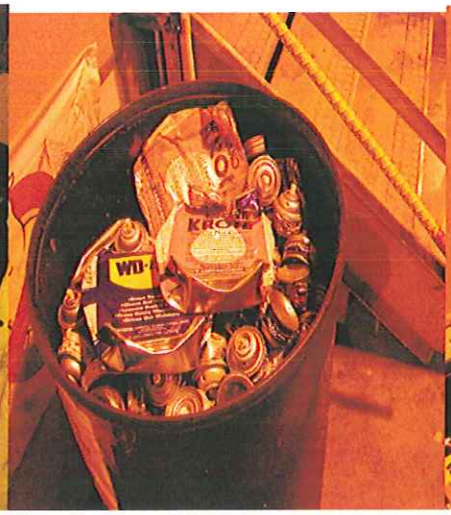
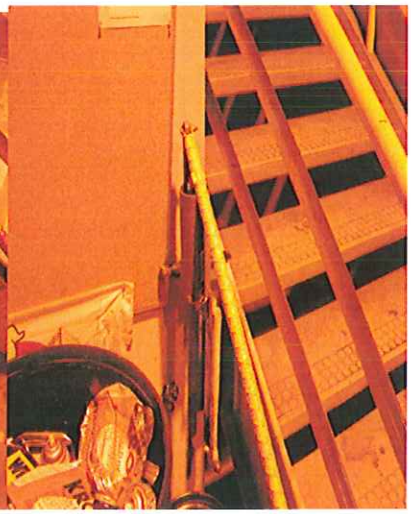
All aluminum cans are collected and sent to an aluminum recycler.

- Plastics are also recycled.

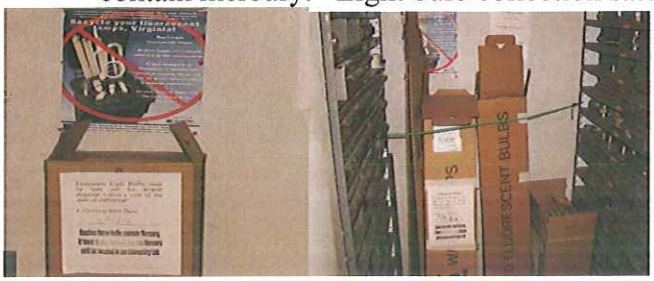
- Metal Recycling including oil drums that can be returned for deposit. All Scrap metal, and scrap parts such as valves and piping. Also steel Aerosol cans by use of a can machine. All scrap metal is staged in drums outside the shop in GT3 bay. The Aerosol cans are collected in the shop area near the contractor's break room.





Can Puncher Crushed cans Can Crusher

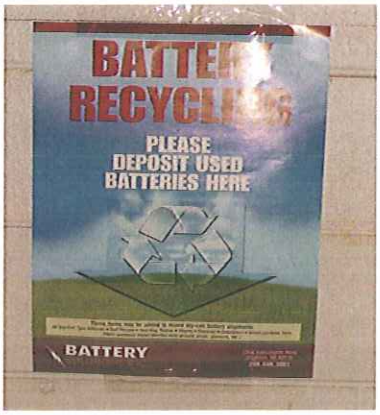
- Universal Waste can be recycled, the mercury from lights and other items that contain mercury. Light bulb collection satellite station is in the tool issue room.



Pesticides are universal waste, but none are kept on site. The third universal waste is batteries and these are recycled.

There are three collection areas; for large batteries the container is in GT3 bay.

For small batteries, the collection stations are located in the warehouse next to the computer and the copy room.



- Pallets are used during plant maintenance periods. The above picture shows wood and pallets being staged for an upcoming maintenance period. After the maintenance is complete the pallets will be stored behind the plant. Any broken and excess pallets will be sent to a recycler.

- In 2007 one of the plant members was contacted by the local American Legion. The Legion has a program where they take computers, take them apart and make good ones out of the parts. The non-usable electronics are then sent to a recycler at no charge to the Legion. In 2007 HCF contributed about 429 lbs of electronics that went into at least three homes for Christmas that year. In 2008 the plant has donated an additional 199 lbs.

Barnes, Chuck

From: Kirby, Andrew **Sent:** Thu 3/6/2008 12:34 AM
To: Barnes, Chuck
Cc: Greene, Bob; Barnes, Joseph
Subject: Recycle
Attachments:

HCF donated approximately 215 lbs. of computer related hardware to the American Legion this past Monday (3/3/08). There are a few more miscellaneous items and expect a few more items from personal donations.

Barnes, Chuck

From: Kirby, Andrew **Sent:** Fri 2/29/2008 7:26 AM
To: Hopewell-Plant
Cc:
Subject: FW: Computers 4 Kids
Attachments:

If there are more items out there let me know, otherwise, I will remove what we currently have collected from downstairs tomorrow (3/1/08). Maybe we can help meet this goal? As always, it is appreciated for those that brought in personal PC's and various hardware items.

Andrew

From: yakima40@aol.com [mailto:yakima40@aol.com]
Sent: Wednesday, February 27, 2008 1:49 PM
To: Kirby, Andrew
Subject: Computers 4 Kids

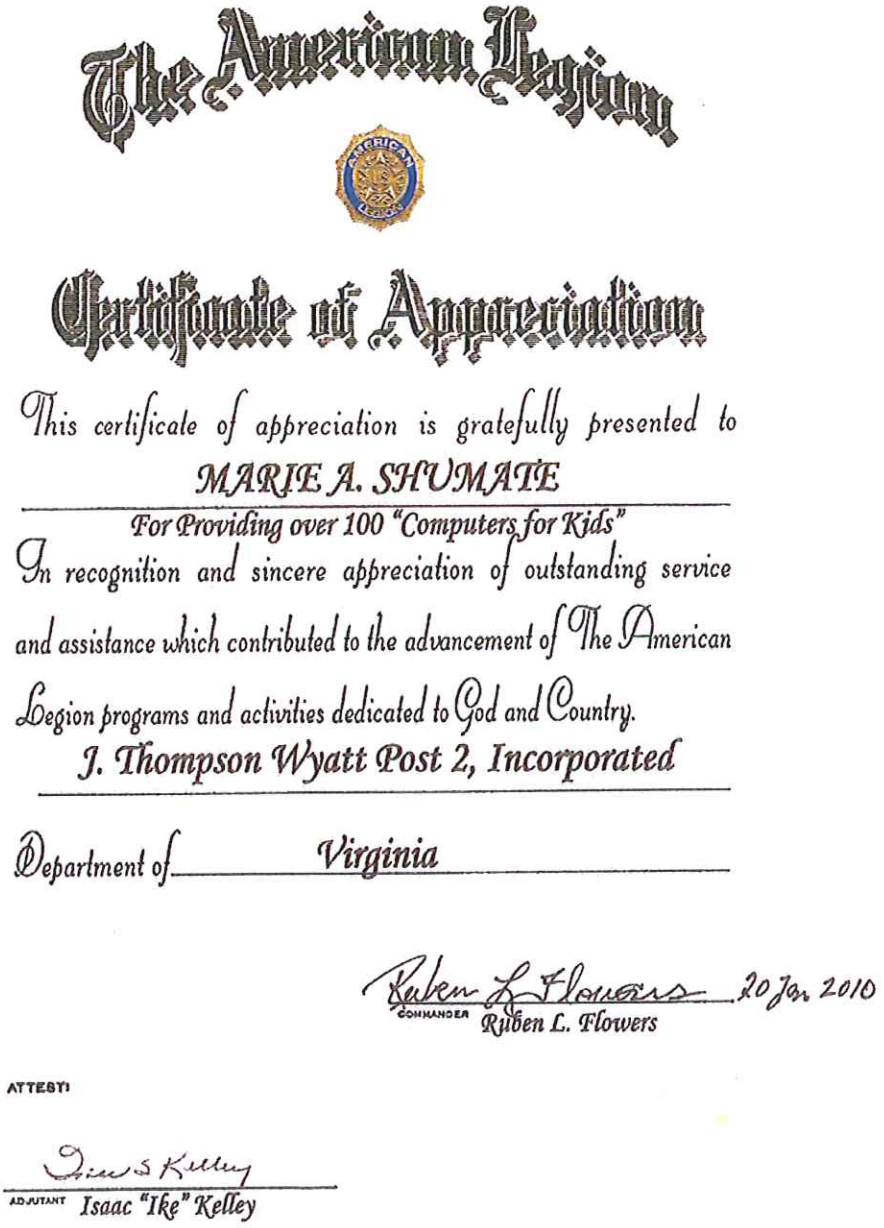
Hi Andy,

I got the word from the Post the other day that you may have some more computers. I fixed up one for a place called the "AlphaHouse1." I found out that it is a place for unwed mothers to stay until their babies are born. They needed computers to help the girls do their homework. I would like to place another computer in that house, and two more in "AlphaHouse2."

If you do have more that you could donate, I would appreciate it very much. Most of the ones I have left are REALLY OLD! A couple of them have Windows 3.1.1. Hard to believe that isn't it.

Give me a call or send an email. Thanks again for all your help and thinking of our program.

Marie



The American Legion

Certificate of Appreciation

This certificate of appreciation is gratefully presented to

MARIE A. SHUMATE

For Providing over 100 "Computers for Kids"

In recognition and sincere appreciation of outstanding service and assistance which contributed to the advancement of The American Legion programs and activities dedicated to God and Country.

J. Thompson Wyatt Post 2, Incorporated

Department of Virginia

Ruben L Flowers 20 Jan 2010

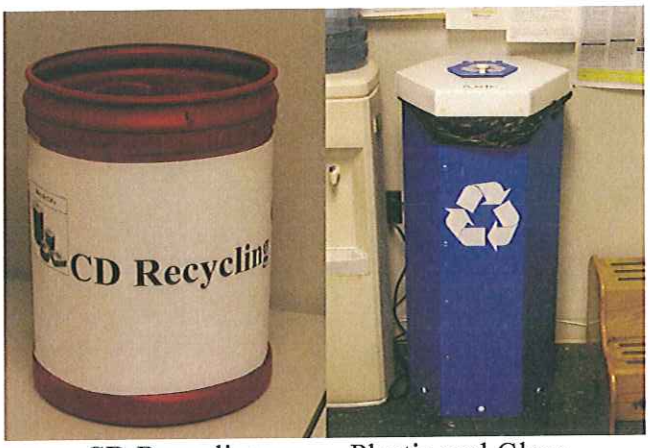
COMMANDER Ruben L. Flowers

ATTEST:

Isaac S Kelley

ADJUTANT Isaac "Ike" Kelley

- At the beginning of 2008 Plastic, Glass, and CD Disk have been added to the recycling list.



CD Recycling Plastic and Glass

- Cardboard is an item that is separated from the normal trash. Over 2 tons of cardboard were recycled in 2007 and over a ton has been recycled in the first half of 2008.
- Parts washer solvent is normally not though of as a recycle material, but the solvent is cleaned and reused. HCF working with Safety Kleen uses the safest least toxic as possible that will get the job done.

- An item that the plant had overlooked for years is its coffee grounds. One day one of the employees ask to take the coffee grounds to put in his garden. It seems that the grounds will keep the soil loose and help retain moisture. In 2008

HCF has encouraged personnel to take the ground for garden use instead of landfill disposal.

Test project using 50/50 soil and coffee grounds

In late 2008 cell phones were added to the list of recycle items. In an effort to continue good community relations and due to the large number of prior military; HCF took up the cell phones for soldiers. As of early 2009 HCF turned in about 32 lbs of cell phones. This will provide over 100 minutes in calling cards for our troops.

In 2009 electronics that could not be used by Computers 4 Kids or cell phones were gathered for a spring cleanup. This offer was extended to the community. This placed over 2200 lbs of electronics into a recycling program instead of being placed in a land fill.

In 2009 spring cleaning found discarded articles of clothing left by former employees. Useful items were sent to Good Will.

There is always room for improvement.