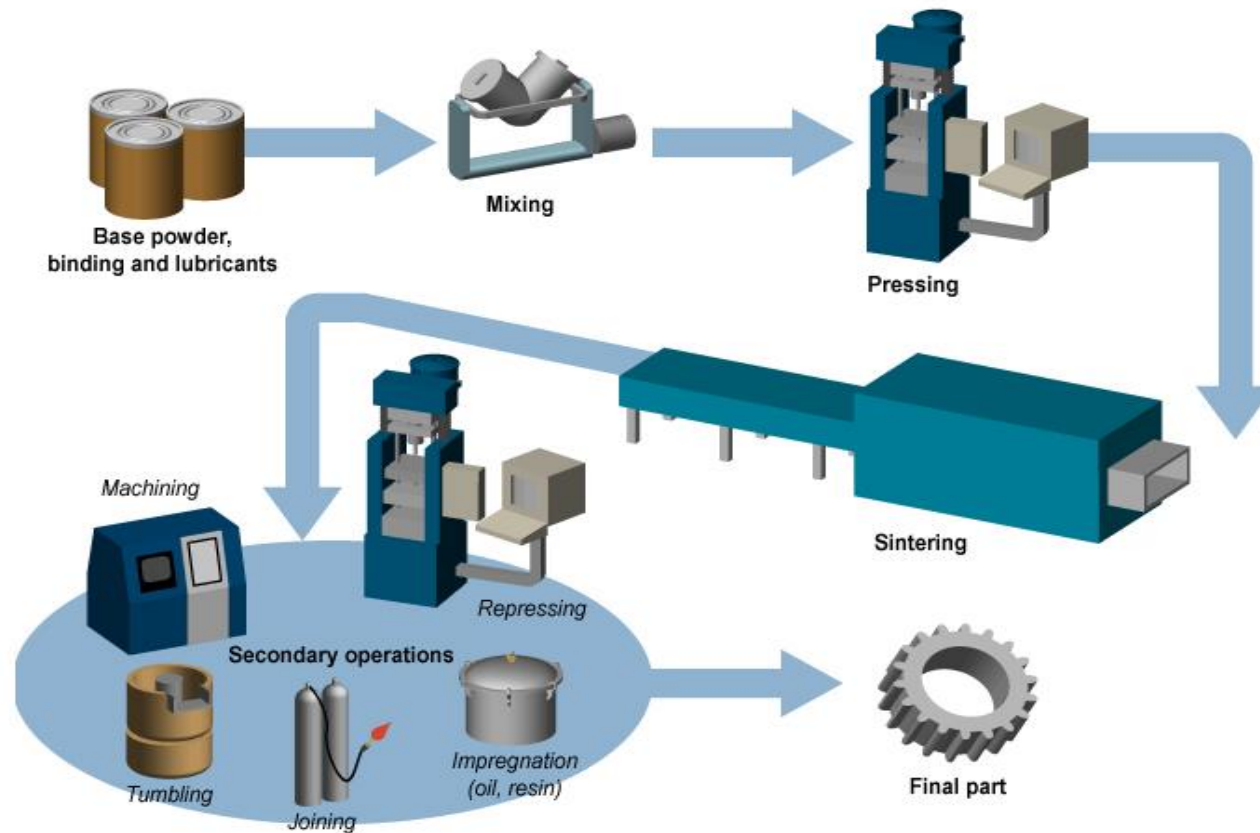


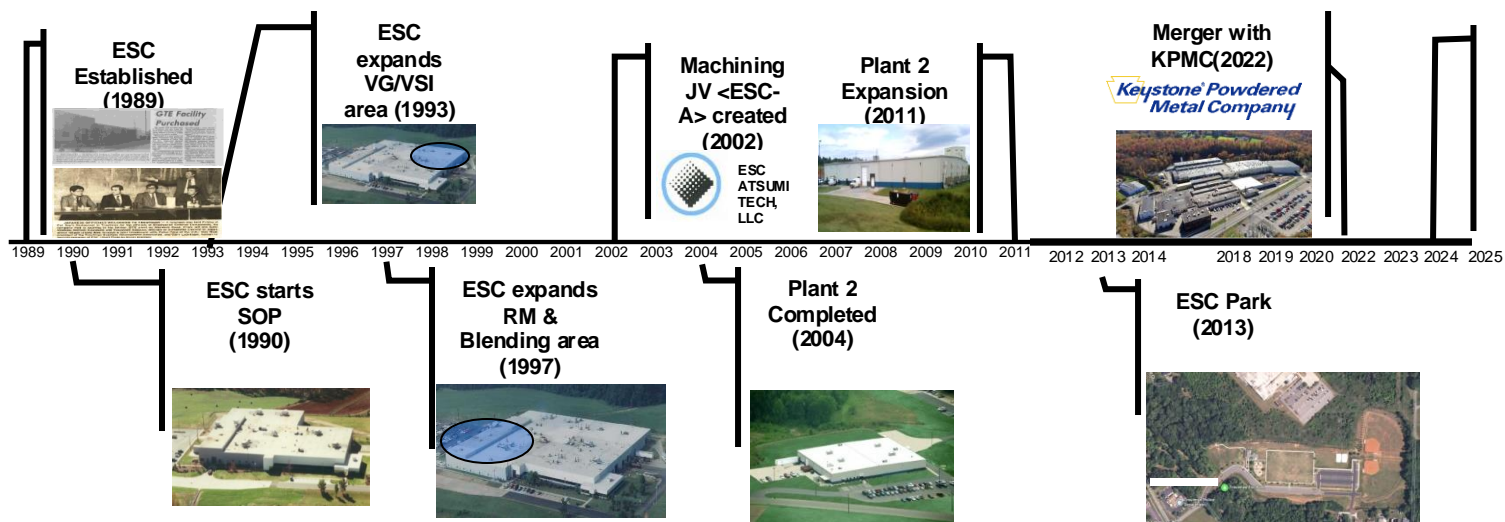
Keystone's Exemplary Commitment to ESI

Beverly Welch, EHS & Training Manager
October 29, 2024

Powder Metal Process Overview



History



Announcement of closure (2024) to be completed in 2025

By Charles O'Brien
Company to lay off 217 Charlotte-area workers, shutter its plant, state filing shows



Our ESI Story

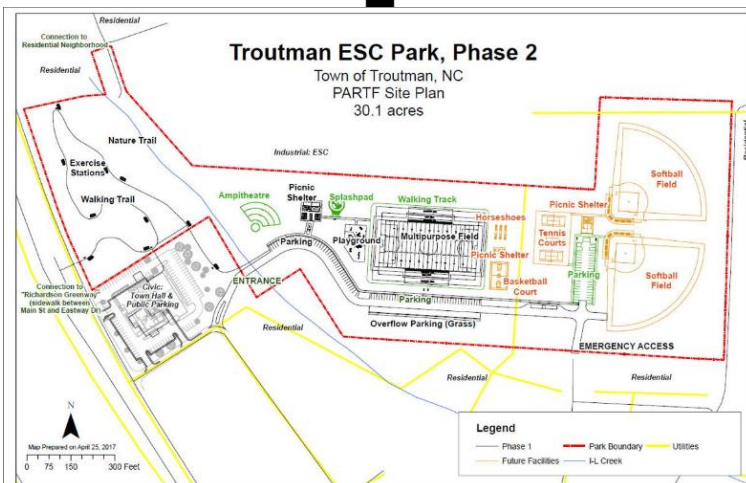
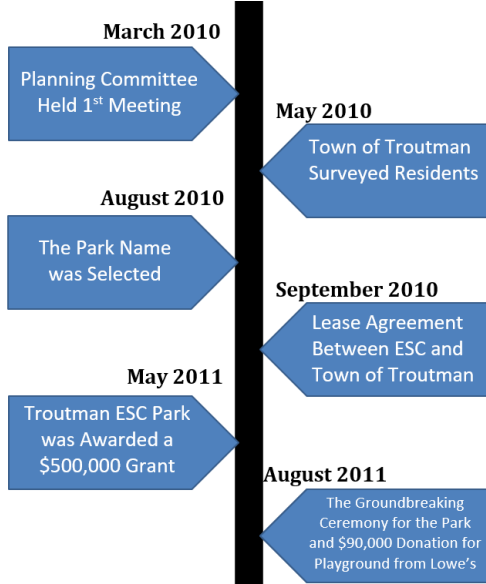
- ESC joined ESI 2002
- ESC became a Steward in 2010
- ESC served on the ESI Advisory Board in 2011 & 2012



Twenty Years of Environmental Successes



• Troutman ESC Park



Twenty Years of Environmental Successes



- Troutman ESC Park
 - Trails and Treats 2011
 - Fit stations 2016
 - Volleyball Courts 2017
 - Movies in the Park 2019
 - Baseball Fields 2021
 - Splash pad 2023



Twenty Years of Environmental Successes

- Energy Efficiency Improvement
 - 2010 - 2014 Lighting efficiency projects
 - 2014 Install auto air blow offs in compacting
 - 2016 Eliminated project from steam treat operation.
 - 2016 Moved projects from belt to batch temper.
 - 2016 Reduced one belt furnace from production by increasing efficiency on other furnaces.
 - 2016 - 2024 Air leak campaign.
 - 2017 Improve furnace throughput.
 - 2017 - 2024 Idle furnaces not in use.

Before:



After:



Twenty Years of Environmental Successes

- Natural Gas Emissions Improvement – Installed Thermal Oxidizers
 - Improve prevention of visible emissions from insufficient combustion of furnace exhaust
 - Increase safety by avoidance of stack build-up

Previous



New

EC300 BURNER	
MIN INPUT	90,000 btu/hr
MAX INPUT	300,000 btu/hr
NOZZLE	4"



Twenty Years of Environmental Successes

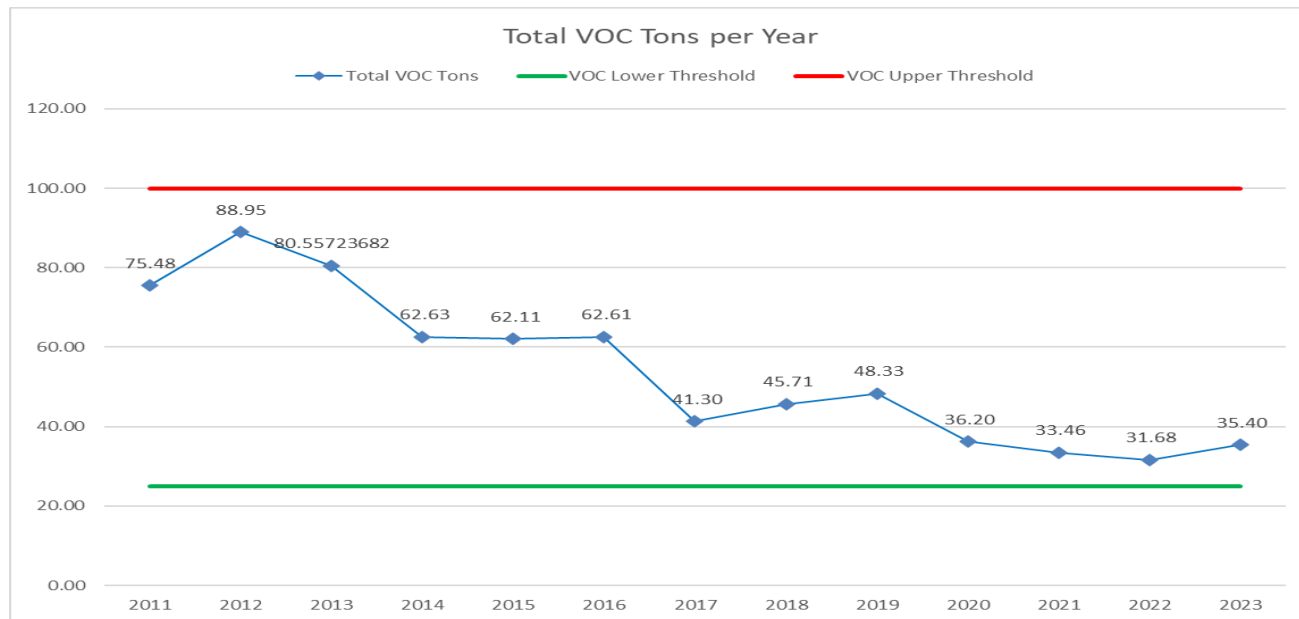
- Natural Gas Emissions Improvement – Outside Air Temp Control
 - Controls Boiler Water Circulation Pump
 - Uses RTD to measure outside air
 - Adjustable setpoint for comfort
 - Pumps run only when heat is needed for more efficient use of Natural Gas.
 - Improvement over former manual means of control



Twenty Years of Environmental Successes

- VOC Reduction

- Replace large oil dip tanks with small dip tanks in 2010
- Replace batch oil dipping in tanks before coining with continuous delivery during the coining process.
- Chemical substitutions:
 - Magnaflux Carrier II 0% VOC, 97% prior to 2013
 - Replaced Encote (92.9%) with low VOC oils on several projects in 2017



Twenty Years of Environmental Successes

After: Reduce Surface Area of Containers

Small "Ferris Wheel" Tank

- VOC Reduction – Usage / Evaporative Control

Before: Dip Product in Rust Preventative



Open Tanks Much Surface Area for Evaporation



Tight Seal Lid when not in Use



Evaporative Loss is Reduced

Twenty Years of Environmental Successes

- VOC Reduction – Recycling of Coining Lubricants

Before: Dip Then Coin

Change Oil Every Month or When Dirty



Coining Press
Point of
Operation



Oil Delivery
Valve Assembly
(Supply from Oil
Collection Sump
Under Press –
Filtered and then
Delivered to
Valve Assembly)

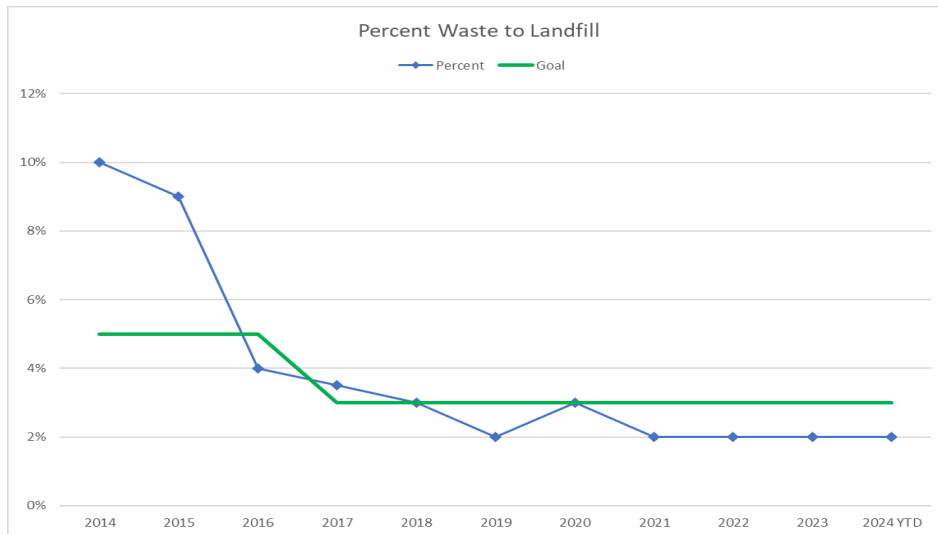
Oil Runoff
Collects in
A Sump
under
The Press

**After: Continuous Flow Filtered Oil
No Change Required Add when Low Level**

Twenty Years of Environmental Successes

- Reduction of Landfill Impact

- In 2016 we were able to remove 3 waste streams from the landfill;
 - Grinding swarf – Recycled into rebar
 - Wood waste – Recycled into mulch
 - Oily solids waste – Waste to Energy
- Patience and persistence in a changing recycling market
- Post 2020 – Unrelenting training of new hires during a time of high turnover



Twenty Years of Environmental Successes

Community Involvement:

- Adopt a Highway 10+ Years



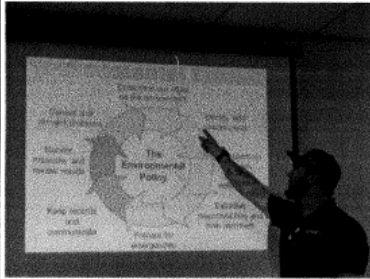
Twenty Years of Environmental Successes

Community Involvement:


- Environmental Awareness Education for Local High Schools



Earth Day at Mooresville High



Aubrey Meadows visited Mooresville Senior High School on Earth Day, April 22, 2015, to give a presentation to their science classes. The presentation was about ESC and what ESC is doing to protect the environment. Throughout the presentation he asked several questions about environmental topics and handed out Blue Spruce gift trees to the students who provided good answers. The students and teachers were very engaged and seemed to enjoy the presentation.



Continuing Membership in the Midst of Imminent Facility Shutdown

- On April 9, 2024 the decision to close the Troutman facility was announced to the employees.
 - The first round of layoffs is scheduled to occur November 1, 2024.
 - Mass production is expected to be complete by December 31, 2024.
 - Closure is expected to be completed by April 1, 2025.
- At the time of the announcement, we were in the process of renewing our membership as a Steward...

...Why continue with renewal?

Continuing Membership in the Midst of Imminent Facility Shutdown

What ESI membership means to Keystone as we work towards shutdown:

- Pride in what we have accomplished as members of the program.
- Hold ourselves to the higher expectation of “beyond compliance”.
- Minimizing waste
 - Repurpose as much as possible
 - Recycling in bulk
 - Finding recycling outlets for items we have not had to recycle before
- Collaboration and problem solving as we head into the unknown...



Continuing Membership in the Midst of Imminent Facility Shutdown

- Continuing Community Outreach - Hurricane Relief Efforts 2024



Let's Fill up the Box!

WNC Supply Collection Point

The local aviation community is organizing relief supply flights to get much-needed resources into communities across Western North Carolina that have been devastated by the remnants of Hurricane Helene.

The pilots are working to fly supplies directly from the Statesville Regional Airport (Hangar 3) to areas that are inaccessible by road.

To support these efforts, we will be collecting supplies to be taken to the Statesville Airport.

Accepted Items

- Baby Food & Formula
- Sports Drinks (Powdered Packets)
- Hydration Packs (Powder Form)
- Baby Wipes & Diapers (Children & Adults)
- Bug Spray & Repellent
- Sunscreen
- Plastic Utensils
- Manual Can Openers
- Trash Bags (13 Gal or Contractor)
- Non-Perishable Foods
- Cleaning Supplies
- Plastic Sheeting/Tarps
- Toothbrushes & Toothpaste
- Toiletries & Sanitation Items
- Pet Food (Dog & Cat)
- Hand Sanitizer & Sanitizing Wipes
- Feminine Hygiene Products
- Heavy Duty Work Gloves
- Socks (All Sizes, Unopened)

Items Not Accepted

- Used Clothes
- Water (due to weight)
- Hazardous Materials
- Most Chemicals (including bleach)
- Fuel or Flammable Items



It's all about looking out for each other... it's "We the People".
Sue Tonaus, Machine Operator

Continuing Membership in the Midst of Imminent Facility Shutdown

Continuing Corporate Responsibility - Job Fair

- The first of two planned events was held on 10/8 & 10/9
- Job Fair was held on site
- 22 local employers attended
- Employees attended while on-the-clock



Continuing Membership in the Midst of Imminent Facility Shutdown

- Spill response... no matter how small the spill, it is handled quickly followed by an investigation to prevent reoccurrence. It's not just environmental, but care for our safety too.

Debbie Potts, QC Lab

- ESC/Keystone has done so much for the community over the years, especially the park.

Janice Smith, Production Control

- What has struck me from day 1 is the amount of effort the company puts into minimizing our environmental impact. I had no idea there was so much to pay attention to.

Carolyn Healy, HR Manager



Continuing Membership in the Midst of Imminent Facility Shutdown

- Projects that come to mind are zero waste to landfill efforts over the years. There was an award from Sumitomo relating to the grinding swarf being recycled instead of landfilled.

Aubrey Meadows – Former EHS &
Facilities Manager (ESC)

- It has been a pleasure to work with ESI over the years. I truly enjoyed the collaboration, sharing of knowledge and problem-solving that helped our facility achieve the proud status we work so hard to earn. Their leadership and mentorship provided invaluable tools for the success of our company. ESI has an outstanding team keep up the good work!

Jan Comer – Retired VP of HR (ESC)



www.keystonepm.com

SUMITOMO
ELECTRIC
GROUP