

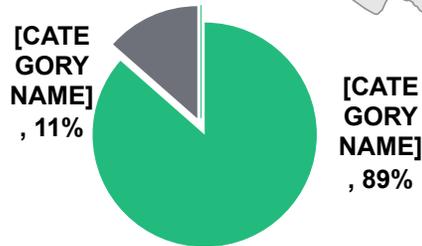
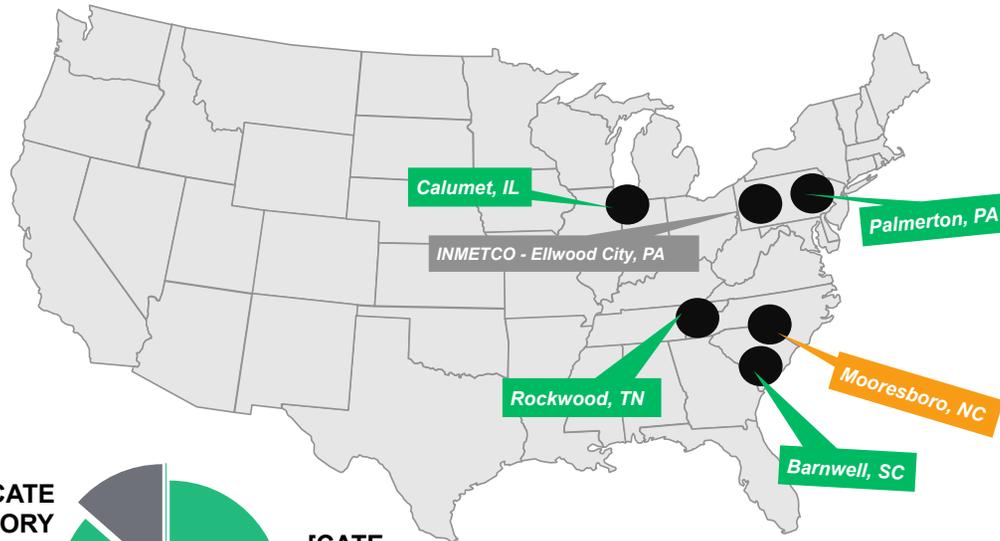
# CAPCA Fall 2019

Aili Wilen, Environmental Manager



# AZR at a glance

- American Zinc Recycling, AZR, (formerly Horsehead Corp.) was formed in May of 2017
- American Zinc Products, AZP, is a wholly owned subsidiary of AZR
- AZR is under new management at the corporate level as well

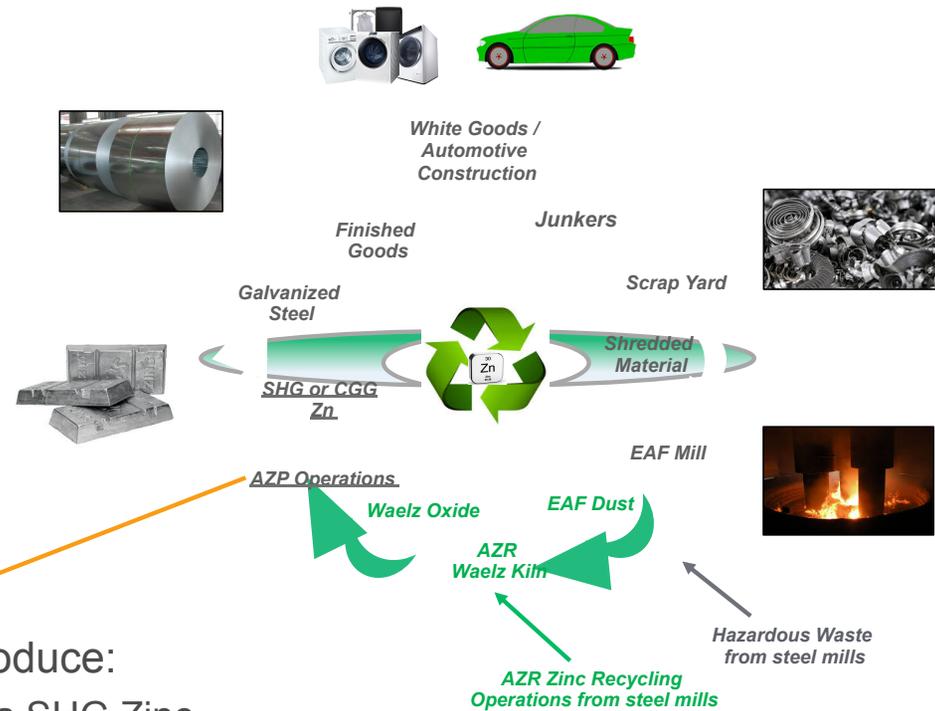


**AZP** AMERICAN ZINC PRODUCTS  
An AZR Company

AMERICAN ZINC RECYCLING  
Delivering a Sustainable Future

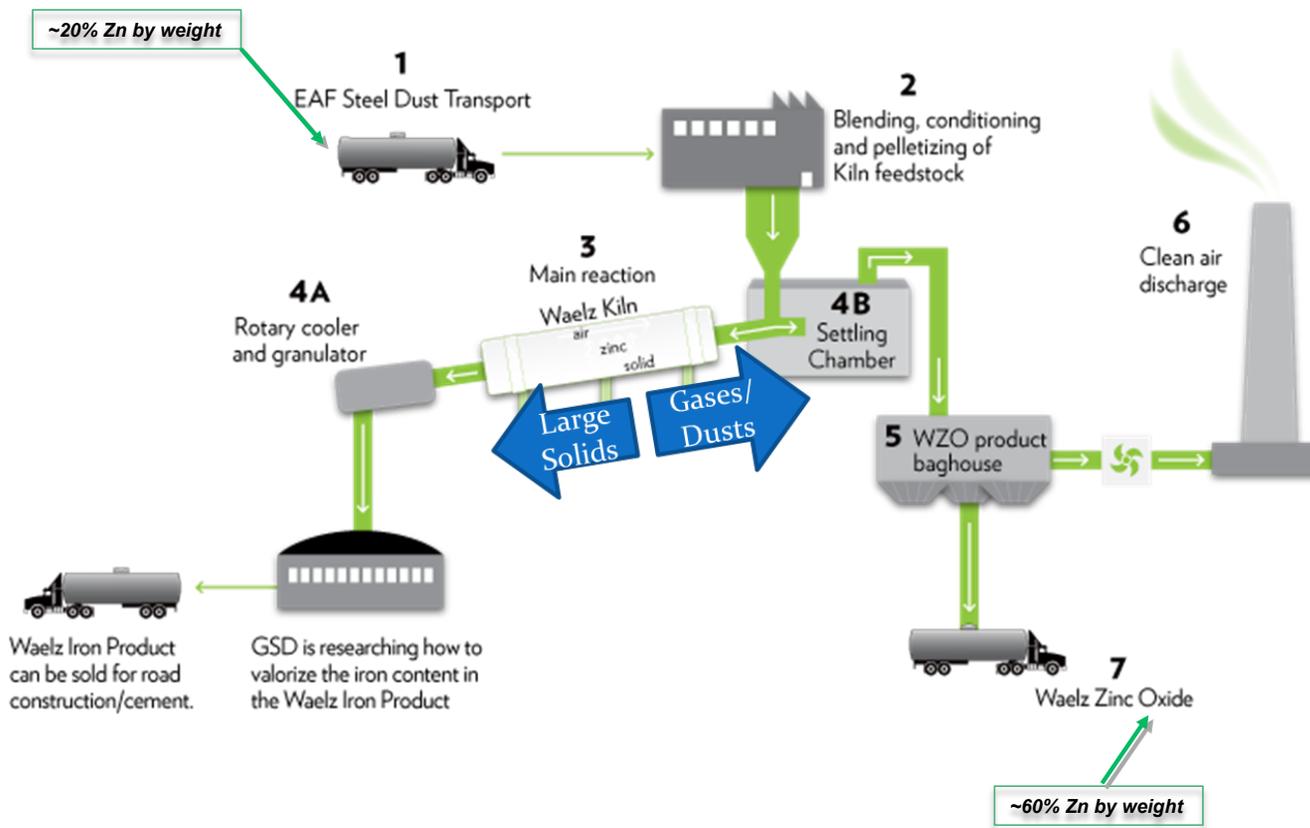
# What we do

## Zinc Life Cycle

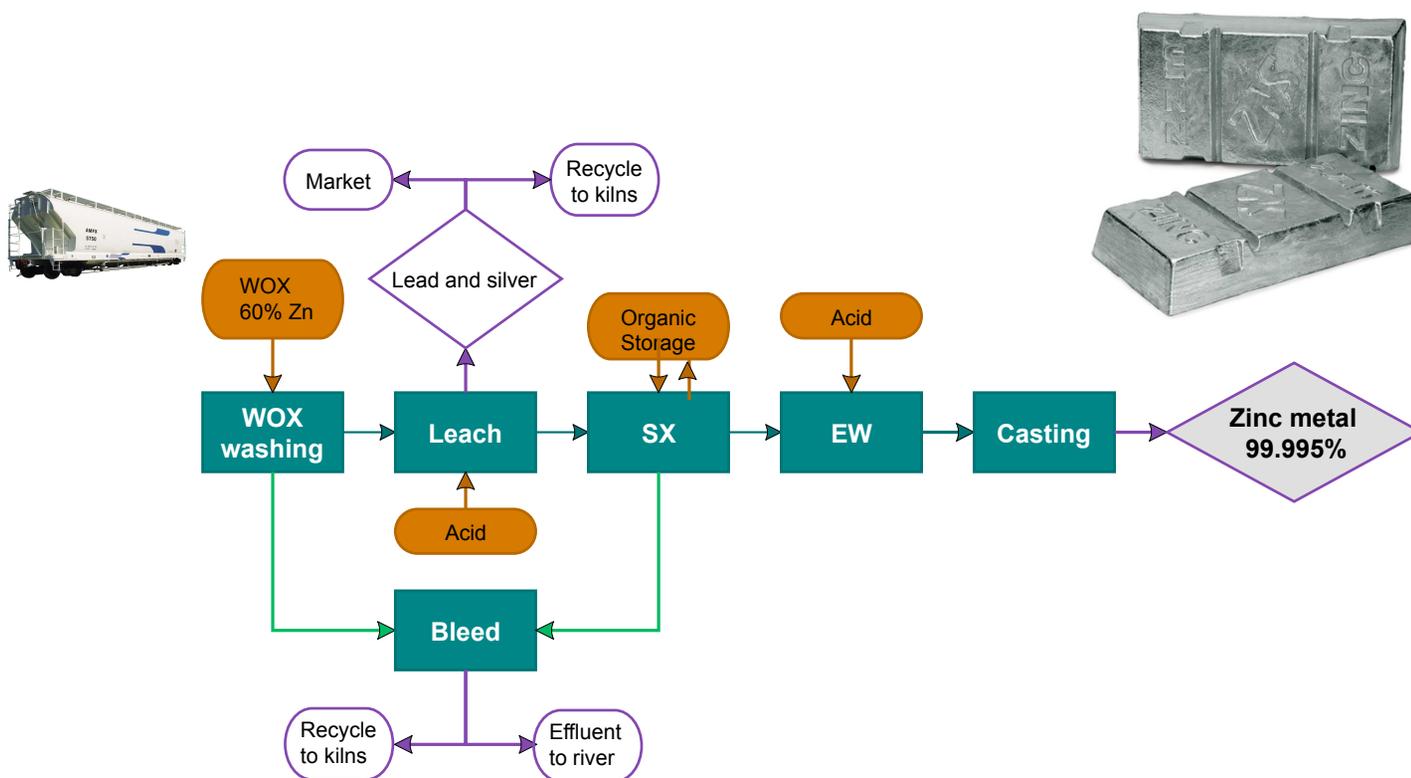


- AZP will produce:
  - 155,000tpa SHG Zinc
  - 8,000tpa of Lead/Silver concentrate
  - 70,000tpa of Gypsum
  - 2,500tpa of Zinc/Cadmium concentrate

# Waelzing Process – Pyrometallurgical concentration



# What We Do—Basic Block Flow Diagram



## Reopening as AZP

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- Original start-up suffered from the following major issues:
  - Major engineering design and operability issues
  - Mis-matched internal unit operations capacities
- Significant changes implemented prior to reopening in April 2019:
  - Cultural changes in both safety and environment
  - Effective management structure and systems
  - ~USD\$180MM on capital to resolve technical/engineering issues
  - 10% investment from Glencore, the worlds largest zinc producer
- Anticipate reopening the facility in early Spring of 2020 post fire rebuild
- One of a kind facility



## Emergency Response Planning – Status at time of fire

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- Fire Department had toured the facility informally
- Existing ICP in place per current NCDEQ permits in place
  - Very limited in scope
  - Inadequate to handle a true emergency
  - Limited drilling
- New comprehensive Crisis Management Procedure was under development prior to fire occurring which incorporates a new ICP for permitting purposes
  - Covers detailed procedures on every aspect of managing an emergency
  - Pre-cut media releases, critical roles defined, checklists, emergency management center defined on and off site
  - Drill planning in the works against this procedure by Dec 2019



## Emergency Response – Fire April 28<sup>th</sup>, 2019



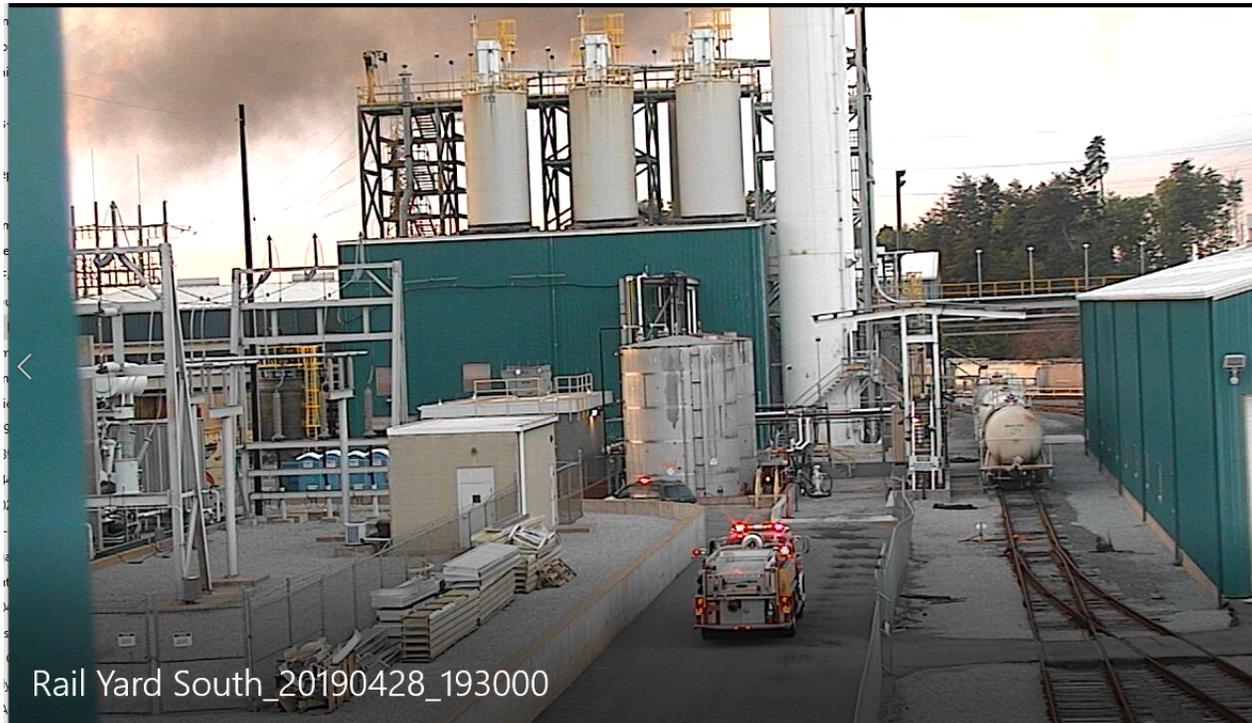
- Fire began ~7:53pm in the Manganese Dissolution Tank
- The plant had commenced full operation in the preceding days and had commenced stripping the first harvest of zinc
- The tank is made of fiberglass like most of the equipment in the area
  - Fiberglass and plastics are impervious to weak acid

## Emergency Response – Fire April 28<sup>th</sup>, 2019



- Fire quickly spread to the FRP sidings and the poly propylene piping acted as a fuse to light the cooling towers on the roof
- The entire roof mounted cooling towers was engulfed in 48 minutes

## Emergency Response – Fire April 28<sup>th</sup>, 2019



- Responders arrived within minutes of the fire starting.
- Cliffside fire department branch located across the street from the facility but not manned by an entire crew

# Emergency Response – Fire April 28<sup>th</sup>, 2019

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- Communications and Notifications
  - 911 called immediately
  - NRC notified within 18 minutes
  - Spill Response (HEPACO and CTEH ) on-site within 45 minutes. Beat the State to response.
- Agencies responding
  - OSHA
  - Health Department
  - EPA – Charlotte Region 4
  - EPA – Atlanta Region 4
  - NC – Air, Solid Waste, Stormwater
  - Homeland Security
  - ATF, SBI
  - Fire Departments – Cliffside, Chesnee, Rutherford
- Inquiries
  - Chemical Safety Board
  - NRC
  - SCDHEC
  - Forest City



## Emergency Response – Fire April 28<sup>th</sup>, 2019

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- On-Site Evacuation and Incident Command
  - Facility was evacuated to parking lot in front of administration building.
  - Some employees granted access to shut down equipment and provide assistance to emergency responders.
  - Incident Command was held by Rutherford County/Cliffside Fire Chief
  - Site fire water ran out and drained the city water system
  - Hazmat team complimentary of company emergency response



## Emergency Response – Fire April 28<sup>th</sup>, 2019

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According to Rutherford County Emergency Management, it and the U.S. Environmental Protection Agency (EPA), along with contract companies, performed 24 hours of community monitoring around the American Zinc Processing facility and found no hazardous pollutants.

The evacuation order for residents in a half-mile radius of the facility was in place due to concerns over airborne pollutants and the presence of a sulfuric acid solution the facility.

- Emergency Responders and Community Evacuation
  - Using the ERC guide for sulfuric acid, which does not specify if it's 100% or 1% sulfuric acid, evacuation is for 0.5 miles
  - Door to door evacuation of 48 residences
  - Roadway in front of facility closed and traffic diverted for 24 hours.
  - Evacuation began Sunday night and was lifted Tuesday. AZP provided housing arrangements for those displaced.
  - Incident command was re-established at church ~ 3 miles down the road.
  - No vehicles allowed on main roadway; golf carts used for transport.
  - EPA had one reading for sulfuric acid at fire department but below OSHA limits
  - No other readings of significance

## Post Fire Impact

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- Fire water was assumed to be contaminated and captured to be fed through our bleed treatment plant to produce clean effluent
- Some fire water entered our storm water system but was captured at our basin settling pond
- Exacerbated by a prodigious rainfall of over 3” two weeks after the fire that caused a small release of off spec storm water to the Broad River due to low pH
  - No material harm observed but NOV issued by the state
- Site continues to process the fire water
  - ~6MM gallons to be processed

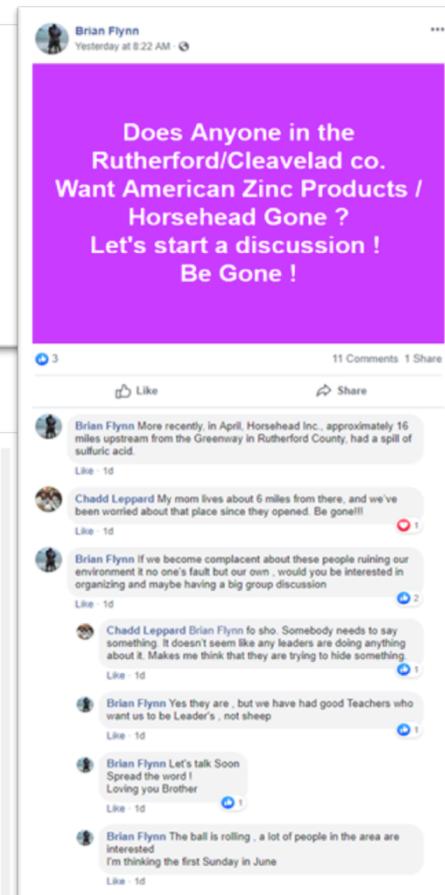


## Post Fire Impact – Basin Repair



# Community Reaction – Social Media

- Two General Responses
  - Supporters
    - Concern for those involved
    - Hope to rebuild and retain jobs
  - Backlash
    - False rumors of cyanide and nuclear material
    - Sulfuric acid effecting air quality (not substantiated by EPA)
    - Misconstrued idea that water was released to the river was highly toxic
    - Worry over surrounding land/soil



# Local/National Media Reaction

## Residents flee airborne acid as fire breaks out at North Carolina zinc plant

UPDATED ON: APRIL 29, 2019 / 12:12 PM / CBS/AP

**Mooresboro, N.C.** - Authorities in North Carolina said a fire at a zinc production plant in Mooresboro forced some residents to evacuate the area early Monday. American Zinc Products said in a statement Monday that firefighters contained the blaze in Mooresboro.

The fire started Sunday night at the plant, which lies near the border between North and South Carolina. The company said that none of its employees were injured and all are accounted for.

Numerous fire departments from Rutherford, Spartanburg, Cherokee, and Polk counties responded to the blaze, [CBS affiliate WSPA-TV reports](#).



## Evacuation lifted in Rutherford County after EPA declares air quality is negative for hazardous material

Matthew Ables, Jon Randall, Jennifer Lindman  
Published April 30, 2019



Smoke rising from the American Zinc Product Plant in Mooresboro.  
©www.globe.com 20, 2019

## BREITBART

TRENDING: GRETA THE SEER ISRAEL ELECTIONS ED BUICK TRUMP'S NEXT NSA COREY IN CONT

### NORTH CAROLINA ZINC PLANT FIRE SPEWS SULFURIC ACID, FORCES EVACUATION

By NATE CHURCH | 30 Apr 2019



The American Zinc Products plant in Mooresboro, North Carolina, forced evacuation within a half-mile as a fire poured deadly acid into the surrounding air.

## Mooresboro plant fire out after overnight evacuation in area; crews testing air quality

by WLOS STAFF | Sunday, April 28th 2019



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VIEW ALL PHOTOS

alexandercamilla62

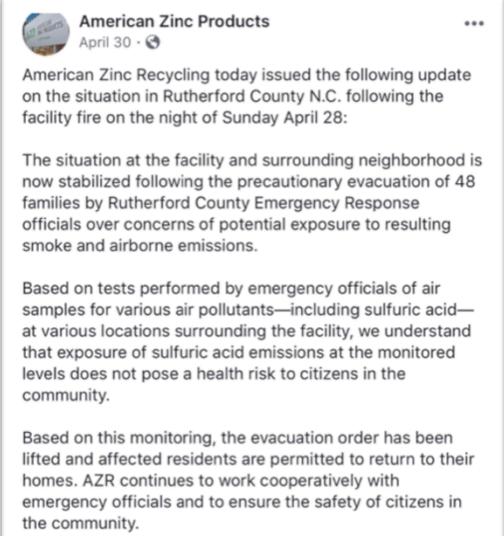


MOORESBORO  
RUTHERFORD COUNTY, NORTH CAROLINA  
A FIRE BROKE OUT AT THE AMERICAN ZINC PRODUCTS PLANT SUNDAY NIGHT CAUSING EXPLOSIONS AND FORCING EVACUATIONS

- Also made national CBS, CNN television and BBC world news website

# Communications After Response

- Communications after event
  - Convey sincere appreciation for the responders who helped contain the fire
  - Applaud our employees for their appropriate response
  - Announce that no injuries had been reported
  - Address and alleviate environmental concerns
  - Demonstrate our cooperation and transparency
- Additional
  - BBQ for first responders on site was well received
  - Regular internal communications and face to face updates to employees to manage workforce uncertainty
  - Additional transparency initiatives (I.e. Employee Assistance Program, Management/Employee discussion forms)
  - In term re-commence public relations through sponsorship, volunteer opportunities, local media and social pipes scheduled postings



**American Zinc Products**  
April 30 · 🌐

American Zinc Recycling today issued the following update on the situation in Rutherford County N.C. following the facility fire on the night of Sunday April 28:

The situation at the facility and surrounding neighborhood is now stabilized following the precautionary evacuation of 48 families by Rutherford County Emergency Response officials over concerns of potential exposure to resulting smoke and airborne emissions.

Based on tests performed by emergency officials of air samples for various air pollutants—including sulfuric acid—at various locations surrounding the facility, we understand that exposure of sulfuric acid emissions at the monitored levels does not pose a health risk to citizens in the community.

Based on this monitoring, the evacuation order has been lifted and affected residents are permitted to return to their homes. AZR continues to work cooperatively with emergency officials and to ensure the safety of citizens in the community.



**American Zinc Products**  
April 29 · 🌐

Statement by American Zinc Recycling Concerning the Fire in the Rutherford County, North Carolina Facility: We applaud the courageous efforts of the fire departments in fighting this blaze. They have successfully contained the fire, with no injuries to any of our employees, who have all been accounted for. We are cooperating fully with state and local authorities to investigate the causes of the fire. Our highest priority at all times is to protect the community, our employees and the environment and we are grateful to the quick action by the local first responders. We are unable to comment further at this time.

## In Summary

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- Stats and Restart
  - Facility restart in 1st Quarter 2020
  - Cause of fire related to hydrogen evolution from manganese system
  - Some lay offs for cash management
  - Most employees retained (200 at the time)
- Things to remember
  - Feed your responders.
  - Not only coordinate with your Emergency Responders, but teach them your process
  - Employee trauma
  - Keep every note, phone call, picture, screen shot, etc.
  - Don't talk to the media, always have a buffer through media relations
  - Know and educate your county fire marshals and fire chiefs – they can assist indirectly with media when the company may be hamstrung to comment
- Social Media
  - The outrage machine is alive and well...
  - Posting media statements to social pipes comes with visceral response
  - Silence post event seems to be the best approach – News cycle is short – ride it out
  - Schedule constructive social media postings to allow time for shares, comments likes etc.
    - Monitor closely...

Questions?

**AZP** AMERICAN  
ZINC PRODUCTS **DELIVERING**  
An AZR Company the Future