

A close-up photograph of a person's hands cupping water from a faucet. The water is clear and flowing, creating a small waterfall effect. The background is a blurred green landscape. The water is being poured into a blue pool, which is the main focus of the image.

# WELCOME TO THE NEW-INDY CATAWBA APRIL COMMUNITY ENGAGEMENT MEETING

# Our Purpose

We partner to make  
the **world cleaner,**  
**safer and healthier** –

helping customers succeed while  
protecting people and vital  
resources.



# Protecting People and Vital Resources



**WATER**

**CLIMATE**

**FOOD**

**HEALTH**

**OUR AMBITION**



WATER

**Clean,  
abundant water  
(Net Positive)**



CLIMATE

**Climate  
resiliency  
(Net Zero)**



FOOD

**Safe,  
quality food**



HEALTH

**Safe, hygienic  
environments**

**OUR REACH**

**1.1 TRILLION  
gallons of water**

**20% of the  
world's power**

**1/3 of the world's  
processed food**

**40% of the  
population**

# You Can Find Us Everywhere It Matters



**INSTITUTIONAL**



**INDUSTRIAL**



**HEALTHCARE/LIFE SCIENCES**



Chemistry & dispensing



Personalized service

OUR CORE CAPABILITIES



Data-driven insights



Training

WORLD CLASS SERVICE

NALCO Water  
An Ecolab Company

# At Home and Around the World

Nearly **3 million** customer locations

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**16** global technology centers

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**90+** manufacturing facilities

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**45,000** associates globally

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**1,300+** associates in South & North Carolina

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# Nalco Water, an Ecolab Company



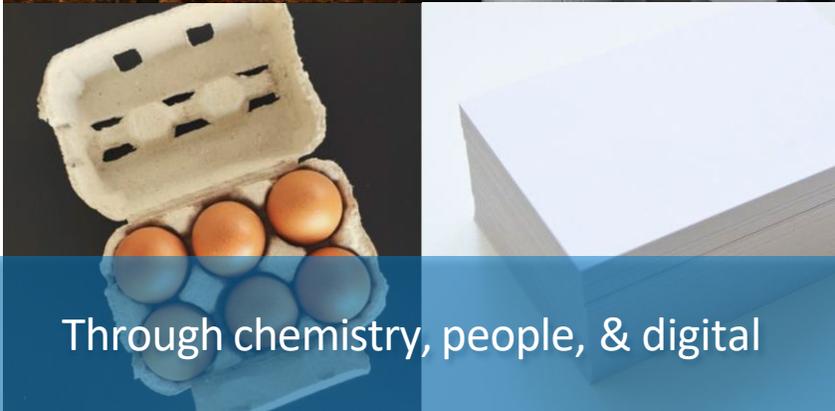
We help ensure the availability of clean water by helping customers to conserve, recycle and reuse it

For Our Pulp & Paper Customers



Value Proposition

Providing process solutions & water treatment products across all grades of paper



Minimize Water *to*  
Maximize Results *at*  
Optimized Total Cost of Operation (TCO)

Through chemistry, people, & digital

# NALCO WATER PARTNERSHIP

**PARETO™ Mixing Technology** reduces freshwater and energy consumption while optimizing chemistry usage.

**Catawba Impact:** 45 million gallons fresh water reduced annually

**Digester Additives** improve the way wood chips are turned into pulp by transporting the chemistry that removes impurities resulting in less trees being used, decreased waste and improved productivity.

**Catawba Impact:** Estimated 3-5% reduction in trees needed for equivalent production

**3DTRASAR™** The world's most comprehensive and advanced water performance system. It detects problems and determines needed corrective action to deliver exceptional performance: higher cycles, less water and less chemical usage.

**Catawba Impact:** Optimized control, reducing wastewater from boiler system

**ODORTECH** was specifically designed for the unique odor challenges of paper mills. Vaporization systems and atomization are primarily the delivery method to combat odor sources. It reduces h2S and associated odor, naturally.

**Catawba Impact:** Reduction of emissions to below target levels

# PARETO™

## Improves Pulp and Paper Processes

Provides optimal feeding solution of the interdependent variables of hydrodynamics, chemistry and water management

### BENEFITS & VALUE:

- Optimized chemical efficacy
- Improved machine efficiency
- Reduced freshwater consumption



### CASE STUDY



Heating



15 billion BTUs  
= \$91K



Headbox  
Flow



1.5%  
production  
= \$770K



Water



More than  
80,000 gallons  
saved per day



Regulation



7,700 Pounds  
VOC's /yr



Material Use



\$275,000 in chemical  
savings per year

# Digester Additives

## Chip Penetrants

Improve cooking liquor penetration & cooking yield

### BENEFITS & VALUE:

- Increased yield and production
- Reduction in white liquor consumption
- Improved quality - Stabilized kappa value & Improved fiber viscosity



### CASE STUDY



Production



1.9% increase in production



TCO / Assets



5.4% reduction in Alkaline Charge



Product Quality



Quality 5% increase in Pulp Viscosity

# 3D TRASAR Controller

## Real-Time Data Collection

Detects system variability through automation and 24/7 monitoring

### BENEFITS & VALUE:

- Increased steam production reliability
- Real-time system knowledge with instantaneous response
- Extends asset life and reduces maintenance



### CASE STUDY



#### Assets



Improved in-the-box % to >95% and Improved boiler reliability with less pH swings



#### Energy



Saved energy with less blowdown during high Out-of-Box readings



#### Productivity



Increased Productivity with less operator time involved with boiler chemistry control

# ODORTECH 8452

## Non-Toxic, Natural Odor Control Solution

### BENEFITS & VALUE:

- Non-toxic
- No Hazardous VOCs
- Biodegradable



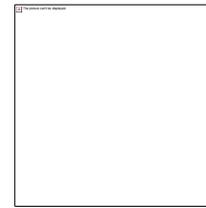
## Safe, Natural & Effective



ODORTECH 8452 uses the natural power of plant oils to remove odors



No harsh, toxic chemicals means ODORTECH 8452 is not dangerous



Independent research and testing prove ODORTECH 8452 works

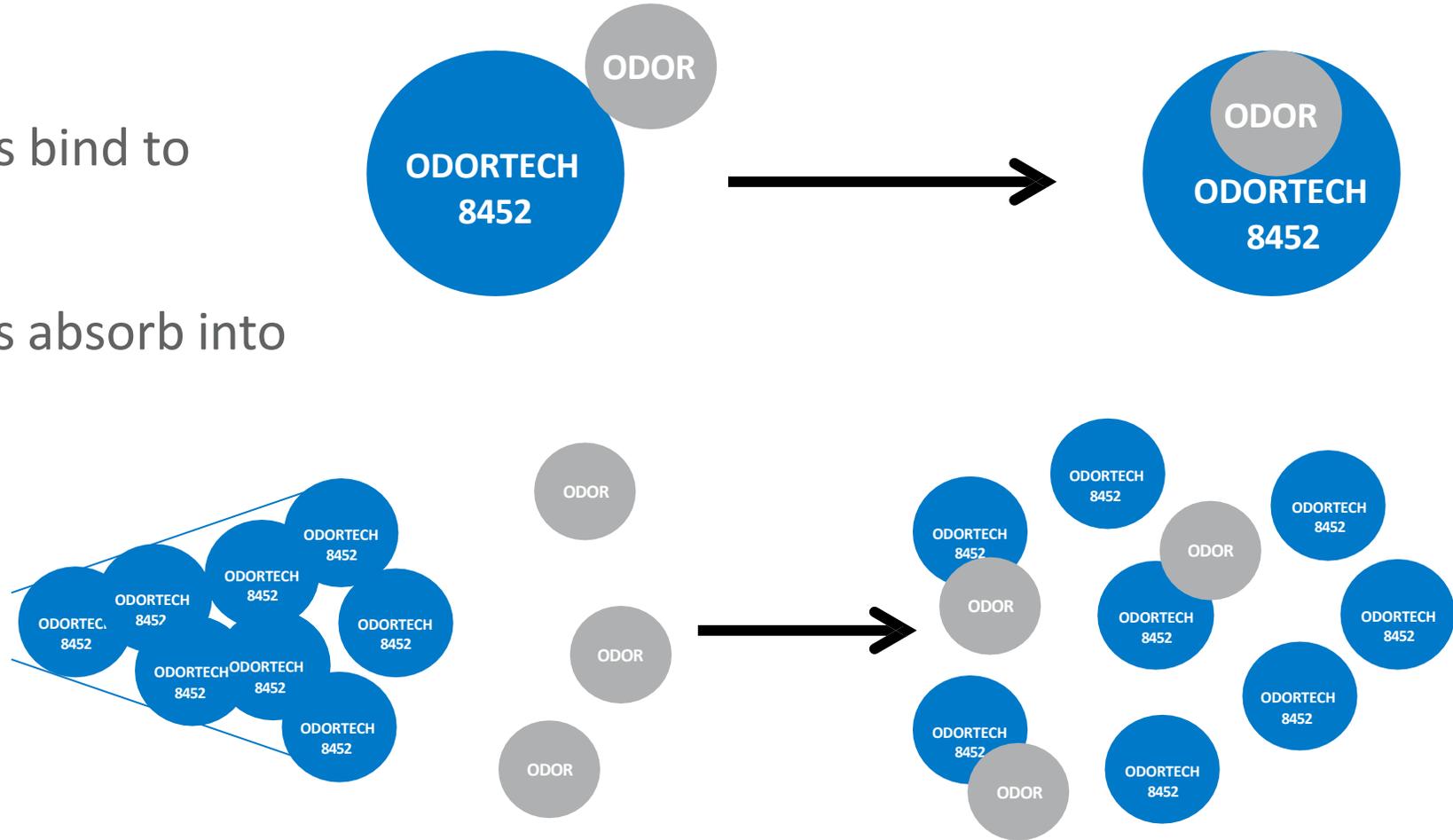


Our engineers create customized, total odor control solutions

# How Does It Work?

## Force of Attraction:

1. Adsorption: odor molecules bind to surface of ODORTECH 8452
2. Absorption: odor molecules absorb into ODORTECH 8452
3. Chemical Reaction
4. Biodegradation



# vaporization

Deliver ODORTECH 8452 with no added water

## Benefits

- Smaller droplets, more absorption, better odor control
- No added water required
- Reduced costs
- Flexible and efficient
- No mixing or dilution
- No nozzle maintenance in distribution system
- Product will not freeze in distribution system





Thank You!