

## Project Spotlight

### Wood Crossflow to FRP Counterflow Conversion



This industrial facility in Wilson, North Carolina is served by a 3,500 ton chiller plant. During a facilities improvement project at the plant last fall, the old wood crossflow field erected cooling towers were slated to be replaced with new fiberglass counterflow towers. Utilizing a creative phased construction process, partially depicted below, EvapTech was able to greatly reduce the capacity and duration of temporary cooling needed during the project, resulting in significant savings to the customer. In addition, the EvapTech erection crews completed almost 60% of construction activities before the outage began thus limiting the total down time to only 28 days. This turnkey project was a huge success due to the excellent teamwork between the Owner, Johnson Controls, Hoffman & Hoffman and EvapTech.

### In This Issue

- From the Corner Office
- Employee Spotlight: Mike Bickerstaff
- Cold Weather Tower Operation
- Rep Spotlight: Hoffman & Hoffman
- Trade Shows: CTI Annual Meeting
- Product Dev: Focus on the Operator
- Featured Projects: Ha Tinh Steel, Coal Creek Generating Station



Phase 1: Demo/Replacement of Tower 1, rental towers shown in the background.

## From the Corner Office

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As we begin the journey that will become 2017, it is a good time to reach out and say thank you to all of our business partners that made 2016 such a success. Reading through this issue of EvapTech Quarterly it becomes obvious we accomplished a broad spectrum of successful projects as a result of a strong team including a representative network helping to make 2016 a record year for EvapTech. Moreover, reviewing the summary of the four 2016 issues clearly defines the diversity and high degree of project difficulty our customers have entrusted to EvapTech. We are truly blessed to be part of a growing Evapco corporation investing in the future; and cooling tower users have taken note. Good Work Team!

*Don Dobney*

President, EvapTech, Inc.

## Employee Spotlight

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### Mike Bickerstaff

#### VP Construction

Mike is one of EvapTech's most experienced employee-owners. Mike's 38 years of experience include positions with Marley, CCT, SPX, CCS and now EvapTech with assignments ranging from Carpenter through Senior Management. He has supervised the construction of wood, concrete, FRP and metal towers for HVAC, process and power applications.

At EvapTech, Mike serves as VP of Construction, responsible for all aspects of field operations including labor estimating, field staffing, safety and quality training. EvapTech's successful execution of many complex projects with tight timelines over the last several years are a result of Mike's attention to detail and creative problem solving.

When Mike is not busy with cooling towers, he enjoys time with his family and friends.



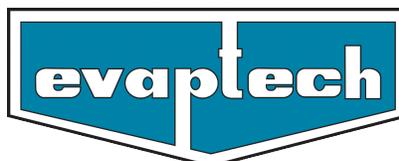
## Technical Tidbit

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### Cold Weather Cooling Tower Operation

Two concerns of cooling tower operators during the winter months are ice formation and high motor amps. Cooling Tower ice control is dependent on limiting the volume of cold water in contact with cold ambient air. This can be accomplished by shutting down fans to reduce air flow or diverting water flow to fewer cells or to a bypass system that prevents the water from contacting the air. EvapTech's standard tower design includes multiple features that help control ice formation and prevent ice damage. Those features can be reviewed on our EvapTech Edge web page - <http://www.evaptechinc.com/evaptech-edge>.

Due to increased air density during winter operation, and because cooling tower fans are constant volume machines, the electric motors driving the air movement system will consume more horsepower than during summer design conditions when running at full speed. Though this will increase motor amp draw by up to 15%, potentially resulting in higher than nameplate amperage, this is a normal operating condition that will not reduce the operating life of the motor. How is this possible? Electric motors are rated at a maximum nameplate and a corresponding atmospheric temperature. Because the outside temperature varies inversely with this increased amperage the total temperature rise remains within normal conditions and does not impact motor life.



# Sales & Marketing News

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## Rep Spotlight: Hoffman & Hoffman



Hoffman & Hoffman has been a part of the Evapco family since 1980 and is headquartered in Greensboro, NC. With offices throughout North Carolina, South Carolina, and Tennessee, Hoffman & Hoffman continues to expand and grow the Evapco/EvapTech brand. EvapTech recently worked closely with the Hoffman & Hoffman office in Raleigh (pictured) to finish the project spotlighted on the front page. Its completion in November marks the third EvapTech cooling tower installed in the Raleigh area ranging in size from 3,500 to 8,000 tons. We look forward to continued success with Hoffman & Hoffman – great job everyone!

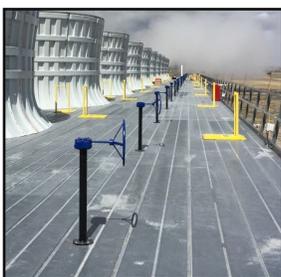
## CTI Meeting Preview

The Cooling Technologies Institute 2017 Annual Conference will be held in New Orleans, LA this year; February 5th through 9th at the Sheraton New Orleans. Mr. Mark Scholl of Alliant Energy in conjunction with Mr. Jean Pierre Libert of Evapco, Inc. will present a paper entitled ***Wet-Dry Technology to Abate the Visible Plume from an Existing Cooling Tower***. Alliant Energy's Riverside Power Plant in Beloit, WI undertook a cooling tower upgrade project to reduce the visible plume from the existing wet cooling tower. Extremely visible plume was causing several operational challenges at the plant and the surrounding community. Several different options were investigated and EvapTech's EVAPDRI wet-dry technology was selected. The paper explains the project challenges, their resolution, and results of the project.

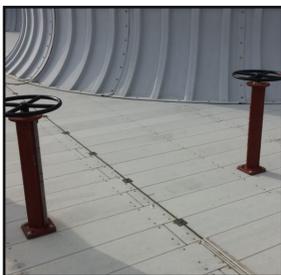


## Product Development Update

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Crossflow Tower Valves



Plume Abated Counter-flow Tower Valves

### Focus on the Operator

As part of an ongoing campaign to design and supply an operator friendly product, EvapTech has recently provided multiple towers with extended valve stems to allow easier water flow control. These valve stem extensions prevent cooling tower operators from descending ladder hatches and/or traversing plenum walkways to access valves on each and every cell of the tower. Instead the valves can be accessed directly from the fan deck level and a job that used to take an hour can now be accomplished in just minutes. Motor operated valves are also available to allow remote control of the tower's water flow if desired.

With all of the time saved from flow control duties, tower operators can contact their local EvapTech representative to discuss spare parts or other tower upgrades!



# Featured Projects

## Formosa Ha Tinh Steel

EvapTech Asia Pacific is at the final stage of completing the Formosa Ha Tinh Steel Mill project in Vietnam. ETAP started working on this project late 2010, supporting the planning and study of the cooling water system for one of the largest investments in Vietnam. The plant sits on 3,300 hectares of land with plan output capacity in phase one of 7.5 million tons. ETAP received the first of the orders in Q3 2013 and at the final count the scope of supply included 18 cooling towers totaling 63 cells in combinations of counterflow, crossflow, PVC film fill and plastic splash fill configurations including design, supply and erection.



## Great River Energy—Coal Creek Tower 91

EvapTech’s partnership with Great River Energy has been key to the growth of EvapTech from its beginnings in 2005. EvapTech completed Towers 93 and 92 in 2008 and 2014 respectively at GRE’s Coal Creek plant near Underwood, ND, and was recently awarded the 3rd of these 3 large crossflow mechanical draft tower refurbishments. The turnkey scope includes the demolition and 100% fill ring replacement with new fiberglass structure, fill, eliminators and hot water distribution system. The work will be completed during the plant’s Spring 2017 outage.

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### Social Media

