

# EVAPTECH QUARTERLY

July 2017, Q3

# **Project Spotlight**

#### AK Steel Corporation—Middletown & Mansfield, OH

EvapTech has enjoyed some recent success with AK Steel Corporation. On the tail of the successful replacement of a 4-cell Series EX Crossflow in 2016 at the Middletown (OH) Works slab furnace unit (see photos), EvapTech was awarded a near duplicate tower at the same site this spring. This new 4-cell Series EX Crossflow tower will serve the clarified water system of AKS's hot strip mill. The project is turnkey in scope includes the demolition and



disposal of the old Marley wood crossflow tower (including asbestos abatement), and the design, supply and

installation of a new fiberglass framed tower.



Just 2 hours north in at the **Mansfield Works**, EvapTech was awarded a new 2-cell Series ESP FM Approved cooling tower to replace an aging Marley Class 500 crossflow tower. Like the Middletown project, EvapTech's scope is turnkey including demolition and disposal, and installation of the new counterflow tower. EvapTech's ESP FM Approved tower is the ONLY fiberglass framed cooling tower product that does not require a spare cell; a key factor in AK Steel's evaluation.

AK Steel has secured temporary cooling tower units at both sites to ensure uninterrupted plant production during these cooling tower replacements.

### In This Issue

- From the Corner Office
- Employee Spotlight: Alanna Bierbaum
- · Mechanical Equip. Adjustment
- Rep Spotlight: Lathrop Trotter
- Product Dev: FM Update
- Featured Projects: Coal Creek,
  Huntington Unit 1 & 2

#### From the Corner Office



Here we are again at the midpoint of the year following another hectic spring cooling tower season. Of the many projects completed this spring, one stands out for its unique chal-

lenge and another for completion of the third and final phase. Huntington Generating Station required a unique construction method wherein EvapTech was able to restore operation of two of the four cells to be replaced within a one week period, then completed the rest surrounded by an operating 12-cell tower, twice. Coal Creek Generating station is the completion of the third and final FRP ring replacement on a round mechanical draft tower. With the first unit now 10 years old, and looking no worse for wear, EvapTech is pleased to have been a key partner of Great River Energy in this effort.

#### Don Dobney

President, EvapTech, Inc.

# **Technical Tidbit**

### **Mechanical Equipment Adjustment**

Cooling towers are extremely important assets that provide service for many years when properly maintained. Like any piece of rotating equipment, preventative maintenance is required to maintain optimum performance. Maintaining proper alignment and balance of this equipment requires regularly scheduled inspections and adjustment through the life of the equipment. Alignment of the motor, driveshaft, and gear reducer is crucial to providing dependable service. An annual alignment check, coupled with verifying all hardware on an annual basis is good practice. Checking the pitch of fan blades annually is also important

to provide designed airflow, and reduce vibration through the system.

EvapTech provides mechanical equipment services and parts to help you keep your cooling tower operating for years to come. Contact us at <a href="mailto:repairs@evaptech.com">repairs@evaptech.com</a> for support.

# **Employee Spotlight**

#### **Alanna Bierbaum**

#### **Accounting Manager**

Alanna, also known as Google, is usually able to answer just about any question regarding EvapTech, or she will at least point you in the right direction.

Alanna started with EvapTech in 2007 after receiving her accounting degree from DeVry University. Her accounting role has evolved and expanded over the years. Alanna currently holds the title of Accounting Manager for EvapTech. She tries her best to assist anyone who may need something, from the field crews to the President, and strives for accurate and timely output.

Outside of work Alanna enjoys spending time with her family- including her son and dog. She also enjoys watching and cheering for the Dallas Cowboys.





# **Sales & Marketing News**

### **Rep Spotlight: Lathrop Trotter**

The Lathrop Trotter Co. is located in Cincinnati and was formed in 1922. LT's experienced staff has over 150 years of combined sales engineering experience for the Power and Industrial markets. LT joined the EvapTech family in 2009 representing the Ohio Valley area including Kentucky, Southern Ohio and Southern Indiana, and is well connected with Ameri-

can Electric Power, LG&E/KU, Dynegy, East Kentucky Power Cooperative and Indianapolis Power & Light. LT has helped EvapTech grow its presence in the region with recent wins at AK Steel in Ohio and our exciting new order to refurbish the natural draft tower at Dynegy's Miami Fort Station near Cincinnati. We are honored to have such a class organization as Lathrop Trotter in the EvapTech family.



# **Product Development Update**

## **FM Update**

EvapTech has enjoyed great success with our **ES and ESP Series FM Approved** cooling tower products. Recently FM Global and FM Approvals announced significant changes to the FM Property Loss Prevention Data Sheets DS 1-6 and Standard FM 4930 respectively. The key changes are as follows:



- 1. An FM Approved cooling tower design is classified as either limited combustibility or multi-cell.
  - ♦ Limited Combustibility designs do not require a redundant cell and may be single cell or multi-cell based on the single cell Approved configuration. EvapTech's Series ESP with patented Franklin Fill and Drift Eliminators meets this criteria, and is the only fiberglass framed, PVC filled tower in the industry to do so.
  - ♦ Multi-Cell tower designs are those <u>not</u> classified as limited combustibility and must always include one additional cell (N+1) to ensure reliability to the user. Note that this is now blanket requirement that does not depend on the number of cells installed, where previously any tower of 4-cells or more did not require redundancy. EvapTech's Series ES meets this criteria.
- 2. DS 1-6 now describes what, if any, additional cooling tower capacity or redundancy is required for an FM Approved tower application. FM 4930 now only defines requirements and acceptance criteria to obtain FM Approval.
- 3. FM Global intends to review each application with their client to assess the risks to determine the need for additional thermal capacity.



# **Featured Projects**

#### Great River Energy—Coal Creek Tower 91

After successful completions of Tower 93 and 92 in 2008 and 2014 respectively, EvapTech recently completed Tower 91 of GRE's Coal Creek Plant located near Underwood, ND. The turnkey scope of work was inclusive of demolition, complete fill ring replacement and fiberglass structure, fill, drift eliminators, hot water distribution system and the subcontracting of lightning protection and site surveyors. The crew, in excess of 65 hands and 30,000+ MH's worked SAFELY through temperatures ranging from 6°F - 82°F and



winds in excess of 40 MPH; all with an on-time completion. The continued efforts of key site personnel combined with the EvapTech supporting team continue to make us a leader in the industry.



#### PacifiCorp—Huntington Unit 1 & Unit 2

With our on-going success within the PacifCorp fleet of cooling towers, EvapTech recently completed the refurbishment of four (4) cells on each of the 12 cell cooling towers (Unit 1 & Unit 2), at the 895 MW power facility in Huntington City, Utah. The project required detailed coordination of cells while replacing all structural members, louvers, decking and hot water basins from wood to fiberglass, installing EvapTech's ArchBar fill bars and PVC drift eliminators while reusing all mechanical equipment and distribution headers w/supports. Each tower was offline for 7 days with the balance of the work coming with cells in operation. Precise workmanship and detailed planning enabled EvapTech to successfully complete yet another online cooling tower refurbishment.



# Contact EvapTech

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