

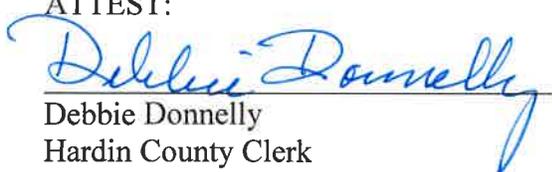
**HARDIN COUNTY FISCAL COURT
RESOLUTION NO. 2015-105**

BE IT RESOLVED, upon recommendation of Judge/Executive Harry L. Berry, to accept the quote from ChemTreat to provide water treatment services for the cooling tower at the government center.

BE IT FURTHER RESOLVED, to authorize the Judge/Executive and the County Attorney to execute the attached agreement.

ADOPTED, by the Hardin County Fiscal Court in its regular meeting of 9 June 2015.


Harry L. Berry
Hardin County Judge/Executive

ATTEST:

Debbie Donnelly
Hardin County Clerk



CORPORATE OFFICE: 4461 COX ROAD
GLEN ALLEN, VIRGINIA 23060 • (804) 935-2000

Hardin County Office Building Elizabethtown, KY

Sustainable Water Treatment Recommendations

Prepared By

Jordan Sanders & Jim Duplessis

Water Treatment Consultants

ChemTreat, Inc.





CORPORATE OFFICE: 4461 COX ROAD
GLEN ALLEN, VIRGINIA 23060 • (804) 935-2000

Date: June 04, 2015

Jim Roberts
Hardin County Offices
Assistant Judge Executive
Elizabethtown, KY

Dear Jim,

We at ChemTreat, Inc. would like to thank you for allowing us to present water treatment recommendations for your facility. ChemTreat is the largest company in the United States that exclusively focuses on water treatment and we look forward to presenting you with sustainable water treatment recommendations for the new Hardin County Office Building. *We understand that excellent results come from consistent service, proper chemistries, and the training of plant personnel. We invite your careful study of our recommendations.* Below is a list of items that we want to emphasize in the discussion of the Hardin County Office Building.

- Prevention of scale buildup within the cooling tower and on the closed loop tube bundle
- Corrosion prevention and control for system piping and closed loop bundle.
- Prevention of water borne bacteria which leads to low corrosion rates as well as a safer work environment for Hardin County employees.
- Onsite cooling water training for John and the maintenance team.
- Monthly on-site service checks from water treatment consultant with a follow up report detailing issues and recommendations.
- Mechanical upgrades, process studies, and chemical management
- Outlined service plan for accountability

If you have any questions about this proposal please call us to discuss them. Thank you again for the opportunity to be of service to you.

Sincerely,

Jordan Sanders & Jim Duplessis
CHEMTREAT, INC.

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Section 1. Cost Breakdown

Water Treatment costs include the following items:

- All service visits as outlined in service plan (monthly with Bi-monthly to start)
- Chemicals needed to protect the cooling tower from scale and bacteria induced corrosion
- Chemical Pump Rebuilds as needed
- Controller calibrations and maintenance
- Annual Program training (education) and administration manuals for operations
- Testing reagents and equipment for daily operations testing
- Emergency service calls
- Communication of treatment programs with emailed reports following each visit
- Water/lab analyses both on site and at ChemTreat's analytical lab in Richmond VA.
- Customized transition plan for seamless changeover
- Project improvement management for reduced cost of operation

Equipment Costs

Item	Type	QTY	Cost	Total Price
Chemical Feed Pump	Pulsafeeder (12gpd)	2	ChemTreat	\$0.00
Chemical Feed Controller	Walchem	1	ChemTreat	\$0.00
Water Meter (Longterm goal-optional)	WalChem (3/4")	1	ChemTreat	\$0.00
Bleed Valve	Adavantage Controls (3/4")	1	ChemTreat	\$0.00
			Total Equipment Cost =	0.00

Cost

- The cost for routine chemicals and service for the facility is \$375.00 per month. To eliminate high equipment costs ChemTreat will supply the equipment listed above so, there is no equipment cost for the Hardin County Government.
- Please note, the cost listed above includes Chemicals, Delivery, and all service calls as detailed in the service plan, the only thing not covered would be KY sales tax.

Section 2. Observations and Program Recommendations

Current Situation:

- There is currently no chemical treatment being used for the new cooling tower water at the Hardin County Office Building. There is no water meter installed to monitor water usages, no conductivity based controller and no blowdown valve to control the amount of dissolved solids within the system.
- It is important to feed scale inhibitor in a system where high temperatures are likely. The reason for this is that calcium is inversely soluble meaning the calcium ion wants to come out of solution at high temperatures which is what will happen if the system goes untreated.
- If the tower continues to run like it is without scale treatment or a conductivity based bleed valve then it is to be expected that the closed loop bundle within the tower will be scaled up causing poor heat transfer rates, high energy costs and high corrosion rates.
- High bacteria rates are a result of non-treated cooling towers which can and will result in a high corrosion rate and the chance of legionella bacteria proliferating.

Recommendations:

- Jim and I have both surveyed the cooling tower and found that there is a valve that can be used to create the supply for the conductivity controller. If John does not want to use this valve then there will be a port needed on the pressure side of the pipe to control flow through the controller. Several plants and school systems have adopted this approach such as Hardin County Schools, Elizabethtown Independent Schools and Akebono.
- ChemTreat would implement a Walchem conductivity controller that would control the two chemical feed pumps and automate the bleed valve. This piece of equipment is critical because it will control the amount of dissolved solids within the tower and reduce water usage. To eliminate equipment costs ChemTreat will provide the necessary equipment needed in order to ensure system protection can be sustained. The equipment installation process will be discussed by John and I to ensure that were both on the same page.
- There is no scale inhibitor or biocide being fed into the system which in return increases the amount of bacteria and scale that can be found within the system. John will definitely have problems controlling scale and bacteria in the near future if a proper water treatment application is not adopted. If chosen, ChemTreat would

implement a 15 gallon pail chemical feed system that would consist of a scale inhibitor (CL-5855) and an oxidizing biocide (CL-497). These two chemicals will be pumped directly into the controller piping using the feed pumps mentioned in the equipment cost.

- The CL – 497 will control the microbiological activity within the tower and reduce the chances of legionella bacteria proliferating.
- The CL – 5855 will increase the cooling towers efficiency and reduce scale formation. The scale inhibitor will generally interfere with growth of mineral scale formations and prevent the growth of dense, adherent mineral deposits.
- As stated above Jim and I take care of several locations within the Elizabethtown area including Hardin County Schools, E-Town Independent Schools, Akebono, Dow Corning, Fint Group and among others. We both live in the area and if called out, can be onsite within 10mins.
- We would conduct both Legionella testing and standard bacteria testing when needed, to ensure that the water is not contaminated. We want to make sure above all else that we provide a safe working environment for Hardin County employees.

Section 3. Service Plan

Services	Monthly	Quarterly	Semi-Annually	As Needed
Chemical Analysis with Report/Recommendations	X			
MakeUp Water Analyses		X		
System Treatment Level	X			
System Sampling & Laboratory Analyses			X	X
Microbiological Studies			X	
Deposit Analyses				X
Equipment Inspections	X			X
Chemical Cost Summaries				X
Reviews of Building Testing		X		
Chemical Inventory Reviews	X			
Toxicant Evaluations for Biocide Evaluations				X

Section 4. Benefits of Utilizing ChemTreat

Representative Resumes'

The services of a qualified chemist or engineer are essential to ensure that all the benefits of our chemical treatment program are achieved. This service is the key to the success of any chemical treatment program. Your ChemTreat representatives have the following qualifications:

(Hardin County Building) Representative:	Jordan Sanders
Degree and College:	WKU, BS Environmental Health Science
Water Treatment Experience:	5 years
Residence:	Glendale, KY
Territory Serviced:	Central KY/Southern IN

(Backup) Representative:	Jim Duplessis
Degree and College:	University of KY, BSME
Water Treatment Experience:	24 years
Residence:	Elizabethtown, KY
Territory Serviced:	Central KY/Southern IN

Service Schedule

Education, training, and experience are needed to make sound technical recommendations in all phases of industrial water treatment. In addition to the experienced representation listed above, ChemTreat offers a panel of water treatment experts to pull from. No matter what the issue is, ChemTreat has the technical expertise to help improve the efficiency of the equipment and to make it a safer work environment.

The first 3 months we recommend bi-monthly visits to ensure that the cooling tower system is operating properly and smoothly. After 3 months it is assumed that good control will be established and monthly visits will be more than adequate to monitor and adjust the water systems. Expansion or contraction of these services is available as future directions are discussed.

Personal Service Report

A typed personal service report will be completed for each service visit. This report will include results of our tests and studies, as well as recommendations we may have for system improvement.

This report will be verbally discussed with management and the personnel responsible for controlling the water chemistries of the systems. The report is usually emailed to the facility the same day of the service call. This report is one of our main communication tools to not only operate the systems but to also identify potential cost savings.

Cost Competitive Program

ChemTreat's chemical program represents a low cost to treat ratio when compared to industry standards. ChemTreat has the ability to be less costly than the other major water treatment companies because of several advantages. Our size as the largest chemical company that solely treats water allows us raw material buying efficiencies that save our customers money. But one of ChemTreat's biggest reasons for being able to be less costly than our competitors is that we are devoid of a typical hierarchal management system. CTI is very lean in upper level management. We do not have multiple layers of District, Regional, Sales, or Marketing Managers; therefore, we are not forced to pay high priced salaries to people who do not directly interface with our customers. High level managers who are not working at the customer facility are an overhead cost that ultimately the customer pays for. Unlike our competitors, the engineers ChemTreat employs are solely focused on our customers and their needs.

We treat local customers such as Akebono, Hardin County Schools, E-Town Independent Schools, Akebono, Dow Corning, Fint Group, Veolia Water, WL Plastics and we are therefore already in the area on a regular basis. This allows us to provide cost competitive, on-site service. (We would be happy to provide you references from Akebono, Hardin County Schools and any of our other customers if requested.)

Ordering Information

ChemTreat, Inc.
4461 Cox Road
Glen Allen, Virginia 23060
Telephone 804 935-2200
Toll-free direct to Customer Service 1-800-648-4579
(for order placement only)

Payment Address

ChemTreat Collections
15045 Collection Center Drive
Chicago, Illinois 60693

FOB Shipping Point/Delivered
(Ashland, Virginia)
(Eldridge, Iowa)
Terms: Net 30 Days

Terms and Conditions of Sale

Acceptance of this order is expressly conditioned upon the terms and conditions contained herein. Any additional or different terms or conditions set forth in Buyer's purchase order or similar communication are objected to and will not be binding upon ChemTreat, Inc. ("ChemTreat") unless specifically consented to, in writing, by an authorized representative of ChemTreat management.

- ◆ **Terms.** Any order or statement of intent by Buyer to purchase any goods or any direction to proceed with shipment shall constitute assent to the Terms and Conditions set forth herein and in any attachments hereto. This sale is not valid unless accepted by an authorized representative of ChemTreat in its offices in Richmond, Virginia.
- ◆ **Delivery and Risk of Loss.** Factory shipping dates given in advance of actual shipment are estimates and shall not be deemed to represent fixed or guaranteed shipping dates. ChemTreat shall not be liable for any loss or damages as a result of any delay and delivery due to any cause beyond ChemTreat's reasonable control, including, without limitation, an act of God, act or omission of Buyer, act of civil or military authority, governmental priority or other allocation or control, fire, strike or other labor difficulty, riot or other civil disturbance, inability to obtain materials, or delay in transportation or any other commercial impracticability. In the event of any such delay, the date of delivery or performance shall be extended for a period equal to the time lost by reason of delay. Unless otherwise agreed on Buyer's purchase order or in a service agreement (i), all sales are made FOB point of shipment, and (ii) title and all risk of loss or damage shall pass to Buyer upon shipment.
- ◆ **Price and Terms of Payment.** Price shall be as agreed to on Buyer's purchase order or in an applicable service agreement. Unless otherwise agreed on Buyer's purchase order, terms shall be net 30 with a finance charge of 1¹/₂% per month after 30 days (Annual Percent Rate of 18%). Buyer shall pay the purchase price quoted herein plus any applicable taxes. Buyer shall provide to ChemTreat any applicable tax exemption certificates.

If, in ChemTreat's judgment, the financial condition of Buyer at the time of shipment does not justify the terms of payments specified, ChemTreat reserves the right to acquire from Buyer full or partial payment or adequate assurance of performance prior to shipment. ChemTreat also reserves the right to suspend shipment until such payment or assurances from Buyer are received.

- ◆ **Warranties.** All products are inspected before shipment. ChemTreat warrants to Buyer that the products manufactured by ChemTreat will conform to ChemTreat's specifications, if any. ChemTreat makes no other warranties of any kind, whether statutory, written, oral, expressed or implied as to the goods or their condition, quality or characteristics, or as to any other matter. **The foregoing warranties are in lieu of all other express and implied warranties, including, without limitation, any warranty of merchantability or fitness for a particular purpose, whether known or not known to ChemTreat.**
- ◆ **Limitation of Liability.** The Buyer's *sole and exclusive remedy* shall be limited to replacements of products that do not substantially conform to the specifications under which the products were manufactured, provided that prompt, written notice of such failure is given to ChemTreat. ChemTreat will either replace the affected goods with conforming goods or refund the purchase price paid by Buyer to ChemTreat for the affected goods at ChemTreat's option. In no event shall ChemTreat be liable for special, direct, indirect, incidental or consequential damages, whether in contract, tort, negligence or otherwise. Use of the goods by Buyer shall be deemed an acceptance of the goods.

Buyer shall assume all responsibility for injury or damage to Buyer or others based on or arising out of possession, handling or use by Buyer or by others of any materials purchased from ChemTreat for any purpose whatsoever, including, but not limited to, any injuries or damages arising from spillage or other occurrences during the unloading of the product at its destination and shall hold and save ChemTreat harmless of and from any and all claims, demands, damages, actions and causes of action whatsoever arising from or growing out of such injury or damage.

- ◆ **Return of Materials.** Materials may not be returned without the prior, written consent of ChemTreat.
- ◆ **Termination.** Unless otherwise provided in an applicable service agreement, either party may terminate an order within 30 day's notice to the other. Upon expiration of 30-day period of notice of termination, inventory (chemicals and equipment) will be bought by customer at list price. Standard terms and conditions will apply.
- ◆ **Assignment.** The delegation or assignment of Buyer of any or all of its duties or rights hereunder, without the prior, written consent of ChemTreat, shall be void.
- ◆ **Acceptance.** This document is not an Expression of Acceptance or a Confirmation document as contemplated in Section 2-207 of the Uniform Commercial Code. The acceptance of any order entered by Buyer is expressly conditioned on Buyer's assent to any additional or conflicting terms contained herein.
- ◆ **Governing Law.** This agreement shall be governed and construed according to the laws of the Commonwealth of Virginia.