

# Case in Point



## ***Lochinvar's Largest Condensing Boiler Brings Energy Efficiency to the Nation's Largest Drugstore Chain***



***With more than 7,800 drugstores throughout the United States serving nearly six million customers each day, Walgreens is the nation's largest drugstore chain. From its stores to its distribution centers to its corporate headquarters, Walgreens is committed to reducing energy usage and expanding the company's renewable energy initiatives through innovation, efficiency and technology.***

One recent example of these sustainability efforts occurred in 2011, when the facility management team at Walgreens Corporate Headquarters in Deerfield, Illinois, set out to replace the campus's existing boiler system as part of an efficiency upgrade. Walgreens Manager of Building Operations, Bill Lewis, initiated the boiler replacement after seeing first-hand the size and efficiency of another

property's condensing boilers during a tour organized by the Northern Illinois chapter of the International Facility Management Association.

"Our system was comprised of three low steam-pressure boilers that were nearing the end of their life spans, operating with roaring noise levels and high energy costs," stated Lewis.

He tasked Sam Jones, HVAC Technician, and Tim Spulak, HVAC Foreman, with researching the feasibility of replacing the existing system with the advanced technology and high efficiency of condensing boilers. The new system would need to efficiently provide heat for the central plant as well as four five-story buildings, spanning 364,000 square feet of office space.

Jones and Jason Robbins, Engineering Project Manager, researched several models to determine the ideal equipment to meet the needs of the expansive Walgreens campus, and ultimately selected the CREST Condensing Boiler from Lochinvar, which was introduced in 2011.

**PROJECT:** *Walgreens*  
WALGREENS  
CORPORATE HEADQUARTERS

**LOCATION:** DEERFIELD, ILLINOIS

**LOCHINVAR PRODUCTS INSTALLED:**  
4 – FBN3500 CREST CONDENSING  
BOILERS 

**DESIGN/BUILD CONTRACTOR:**  
EMCOR SERVICES TEAM MECHANICAL,  
Buffalo Grove, IL



*Old Steam Boilers*

CONT>

The team submitted a capital request to management to replace the boilers and worked with Rick Butler, District Sales Manager for Lochinvar, to secure four 3.5 million Btu/hr CREST boilers.



"The CREST was relatively new to the market when I first began discussing this project with the Walgreens team, and this was actually the first CREST installation in the Chicago area," stated Butler. "It was clear that CREST could offer a high-efficiency, low-maintenance alternative to the old system."

As Jones noted, "Once we saw everything the CREST could offer for this application, our choice was easy. The key attributes that set it apart were the 99 percent thermal efficiency, the built-in cascading sequencer and the on-board MODBUS protocol."

EMCOR Services Team Mechanical, which is based in Buffalo Grove, Illinois, was selected as the design-build contractor on the job.

"We handled all engineering in-house at EMCOR, and then delivered the CREST units to Walgreens," stated EMCOR Services Team Mechanical Vice President of Engineering Cindy Stelzer, P.E. "They were really easy to install since the plant is ground-level with big overhead doors. These are fairly large boilers, but they were easy to put in place. We worked with the Lochinvar guys on how to install them and how to get them from the truck onto the floor."



4 CREST Boilers in place of the Old Steam Boilers

Each unit's all-in-one SMART TOUCH Control and its built-in cascading sequencer modulates the firing rates of the four CREST Boilers, allowing them to share the load requirement equally.

"This is a much easier system and a smart choice for Walgreens," continued Stelzer. "The modulation of the boilers allows for significantly greater energy efficiency since they have a large turndown ratio."

In addition to receiving considerable rebates from the local gas company, which helped to offset the initial capital expenditures, Walgreens is seeing significant reductions in its natural gas utility bills. Although an additional 180,000 square-foot building has been added to the heating system, energy consumption has still decreased by more than 23% over the previous year.

"This system is heating a substantial footprint of the campus, spanning about 16 percent of our total square footage," notes Lewis. "Systems like this make good fiscal sense, and we're looking at the possibility of incorporating this into other buildings as well."

According to Jones, "We could not be more pleased with the performance of the CREST Boilers. To this day, every time the gas company checks the meter, they think it's reading incorrectly since it seems unbelievably low. And every time that happens, we take a little more pride in our top-of-the-line system."

**For more information, visit [www.Lochinvar.com](http://www.Lochinvar.com).**



## ABOUT LOCHINVAR

Lochinvar, LLC is a leading manufacturer of high-efficiency water heaters, boilers, pool heaters and storage tanks. Based in Lebanon, TN, with facilities in Detroit, Orlando, Tampa, Pompano Beach, Dallas, Phoenix and Chicago, Lochinvar stocks all products in all locations.

