

WRAP™ Physical Water Treatment



Located in North Carolina, Elon University is a private liberal arts school with 6,300 students and 215 buildings on a 600 acre campus. Recently, Elon made a commitment to become a completely “green” university, with five buildings already certified as LEED Gold. As part of its green initiative, Elon took a careful look at any toxic chemicals being used for facilities maintenance. One area where the University decided to make a change was in the use of chemicals to treat the water in two of the campus’s major cooling towers.

“We used to spend about \$16,000 per year on water treatment chemicals,” stated Brian Chandler, HVAC Supervisor. “We were adding chemicals on the average of two or three times per week, and every day during the hottest months. During those hot months, we had to bleed down our towers frequently, which meant dumping a lot of toxic water into the City’s sewer system.”

To address this chemical problem, Elon chose to install a WRAP™ Physical Water Treatment System, from Second Earth, Inc., which completely eliminated the need for chemicals to control scale and corrosion. The WRAP™ system has been in operation for over three years on one tower, and over four on the second.

“Prior to using the WRAP™ system, we would have our towers cleaned on a monthly basis. In some cases, we were removing scale by the shovelful. Since installing WRAP™, the amount of scale has been reduced dramatically. And, by physically ionizing the water, WRAP™ helped remove scale that had already built up on the pipes.”

WRAP™ uses a powerful magnetic field to create a “Faraday Generator” inside the pipe. This generator creates enough current to allow the system induce a continuous negative charge in the pipe, which physically repels the negatively charge molecules that form scale. In addition, the pipe attracts the

positively-charge hydrogen ions that bond chemically with existing scale, converting it to a soft sludge that is easily removed during blow-downs.

“In addition to eliminating the cost for scale inhibiting chemicals, WRAP™ has decreased our water consumption by about 50%,” Chandler explained. “The physically treated water allows us to increase our conductivity from about 800 or 900 to 1300 to 1400, which means we need to bleed down less often. This means we’re pumping less toxic water into the sewer system, which allows the University to receive a rebate from the municipal water authority.”

By providing Elon University with these green advantages, WRAP™ offers the potential of helping achieve up to six points toward LEED certification. By replacing toxic chemicals with a physical water treatment solution, Elon University continues to make progress on becoming a 100% green campus.

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About WRAP™ and Second Earth

WRAP™ Physical Water Treatment, from Second Earth, Inc., is a patent pending, environmental water treatment technology that helps protect the environment and delivers cost savings through reducing water consumption, reducing electricity consumption and eliminating the use of toxic chemicals in HVAC systems. Second Earth is located in Greensboro, North Carolina. For more information, visit www.secondearthinc.com.