



Metropolitan Water Reclamation District of Greater Chicago

Press Release

Allison Fore
Public Affairs Specialist
312.751.6633
public.affairs@mwrdd.org
100 East Erie Street, Chicago, Illinois 60611

For immediate release August 13, 2012

Brazilian students, water treatment operators tour Kirie Plant

A group of students and treatment plant operators representing the Illinois - Sao Paulo (SP) Partners of the Americas and Botucatu' SP Brazil recently toured the Kirie Water Reclamation Plant in Des Plaines to learn about the Metropolitan Water Reclamation District of Greater Chicago's (MWRD) state of the art, energy-saving heating and cooling system and water reclamation processes.

The MWRD activated a new sewerthermal system in an effort to reduce energy usage for heating and cooling at the plant. According to MWRD Commissioner Frank Avila, the system is expected to lower maintenance expenses to provide cost savings to the MWRD for years to come. "This is established technology but its application is novel as the recovery of heat from treated water is not commonly practiced," said Commissioner Avila. "The sewerthermal heat pump system works by transferring heat from a lower temperature carrier to a higher temperature carrier. In the

winter, the system extracts heat from the effluent to heat the buildings, and in the summer the heat is transferred into the water to cool the building."

The Kirie WRP has a capacity of 100 million gallons per day and operates 24/7, 52 weeks per year. It serves a 65.2 square mile area and approximately 217,000 people. The plant's effluent has an average temperature of 55 °F and average daily flow of 41 million gallons per day in 2011.

"We had an excellent tour of the James C. Kirie plant and received a valuable explanation of the entire operation of the Chicago area water reclamation system," said Mike Lofstrom, IL-SP Partners of the Americas. "The main objective was to introduce our Sao Paulo Partners of the Americas to North American water treatment facilities. We have accumulated a great deal of information."

The sewerthermal system will be used instead of natural gas for heating and

electricity for conventional air conditioning. The only energy used is the electricity needed to pump the water. It is, therefore, substantially less energy intensive than conventional heating and air conditioning and is expected to reduce the building's heating and air conditioning costs by 50 percent.

The MWRD has been a leader in protecting the environment for over 100 years and has been instrumental in developing technologies that are now widely used around the world. This heat recovery system is part of the MWRD's sustainability initiative where we intend to transition from wastewater treatment to resource recovery operations.

Facility tours are available by contacting 312-751-6633. More information can be found online at www.mwrdd.org.

***Our water environment,
take it personally***



In the photo (L-R): Michael Lofstrom (Board Member, IL-Sao Paulo Partners of the Americas), Robert Hernquist (Board Member, IL-SP Partners), John Smoody (Operations Mgr.), Lucille Oduocha (Treatment Plant Operator), Veridiana Vissotto Paioli (graduate student in sustainable practices, Botucatu', SP), Sidir da Silva Junior (Professor in Sustainable Industrial Practices, SENAC, Botucatu', SP), and Ricardo Reale (graduate student, Conservation Biology, UNESP, Botucatu', SP).

Established in 1889, the MWRD (www.mwrdd.org) is an award-winning, special purpose government agency responsible for wastewater treatment and stormwater management in Cook County, Illinois.