



INTERNATIONAL WORKSHOP ADVANCES IN CLEANER PRODUCTION

"KEY ELEMENTS FOR A SUSTAINABLE WORLD: ENERGY, WATER AND CLIMATE CHANGE"

Industrial Water Management

Cam Metcalf

University of Louisville, EUA

The Industrial Water Management Workshop's objective is to define and explain the Kentucky Pollution Prevention Center's (KPPC) process water management (PWM) program, provide examples of the benefits and outcomes of PWM services, and discuss strategies to enhance knowledge sharing.

The University of Louisville's Kentucky Pollution Prevention Center (KPPC) is using technology diffusion approaches to accelerate the adoption of innovative pollution prevention (P2) and energy efficiency (E2) technologies in industrial sectors. Traditional technical assistance that just promotes P2/E2 technologies has not resulted in the implementation of these technologies to the level most technical assistance programs (TAPs) would like to achieve. Technology diffusion can help companies realize that pollution prevention and energy efficiency are a technically and economically viable alternative over pollution control and treatment. The Technology Diffusion Initiative (TDI) program is a unique, market-driven approach to environmental protection that helps business and industry implement pollution prevention and energy efficiency (P2/E2) technologies that solve environmental problems faced by their organizations. The model uses a multi-step, risk-reduction, confidence-building process that provides market conditioning for penetration and accelerates the adoption of technology innovations.

KPPC found that most companies assume that water is relatively inexpensive and not worthy of a significant management effort. They assumed the cost of water was simply the price at the incoming meter. However, when companies are educated that the cost just starts at the meter, then accumulates more costs as it passes through each process, and finally incurs significantly more costs in waste treatment, a totally new perception of water use costs evolves. KPPC realized the need for process water management was sorely needed by manufacturers and TDI could fill this need with a specific process water management focused program. KPPC developed a seven step water management process that initially focuses on building a system and team approach for water use and management. Because the cost

savings from efficient water management and implementing P2 technologies went beyond expectations, a behavioral change occurred and companies became more proactive in searching for more P2 opportunities. With the PWM approach, KPPC can positively influence and change the behavior of many Kentucky companies that utilize water intensive processes and save millions of gallons of water per day.