INL Intelligence

Volume 9, Issue 12 – December 17, 2009

A high-level monthly briefing on operations and activities at the U.S. Department of Energy's Idaho National Laboratory
Work at the lab advances the Department's strategic priorities of energy security,
nuclear security, scientific discovery and environmental responsibility.

■ INL-directed Advanced Vehicle Testing Efforts Spotlighted

This month, the U.S. Department of Energy's Advanced Vehicle Testing Activity (AVTA) – centered at INL – was featured in the Seattle Times newspaper and on the MotorWeek television program. In each case, INL was recognized for using onboard vehicle data loggers to remotely transmit technical performance information to lab computers located in Idaho. In Seattle, INL was recognized in its research role with an Arizona-based company, eTec, to study the recharging infrastructure requirements for electric vehicles (EVs). This study will be conducted in conjunction with Nissan and 4,700 Nissan Leaf EV drivers. The study will reveal how often these newly purchased electric cars are driven between recharging events, where and how their batteries are charged, and if driver charging behavior changes over time. MotorWeek's TV magazine interviewed Jim Francfort concerning INL's research on 200+ plug-in hybrid electric vehicles owned and operated by AVTA's fleet testing partners.

■ Recycling Program Notes Major Improvement

Although INL has long recycled office paper and corrugated cardboard, a more expansive co-mingled recycling program like those used by larger cities in Idaho was put in place only a year ago. In fall 2008, the laboratory placed co-mingled bins around its Idaho Falls facilities to encourage employees to recycle items such as magazines, plastics, aluminum soda cans and metal cans rather than throwing them into their personal trash cans. And the change has already yielded significant dividends for the laboratory. During Fiscal Years 2007 and 2008, INL recycled around 120,000 pounds of office paper and corrugated cardboard. In Fiscal Year 2009 when the expanded program began, the lab recycled nearly three times as much – more than 340,000 pounds of material.

■ Additional Wind Turbine Data Now Available to Students

Wind power is one of the fastest growing forms of new electricity generation in the Unites States, and Idaho National Laboratory's Center for Advanced Energy Studies is keeping pace by installing another educational wind turbine. A newly installed Skystream vertical turbine now joins an existing Blackhawk turbine, which spins horizontally. The performance of both turbines, situated on the CAES facility's north side, can be monitored and analyzed by students all over the region as part of Wind Powering America's Wind for Schools program.

■ INL's Herring Receives Top Honor

J. Stephen Herring, leader of INL research on nuclear hydrogen production, has been named a Fellow by the American Nuclear Society. Herring was recognized at the recent ANS 2009 Winter Meeting and Nuclear Technology Expo in Washington, D.C. The Fellow designation is the highest honor ANS can bestow on an individual and acknowledges outstanding leadership, professional accomplishment and service to the profession. In Idaho Falls, Herring's team is pushing the limits of hydrogen electrolytic cell longevity and production rates. Their experiments have set a series of new high marks and also produced a technique that significantly lowers energy requirements for the high-temperature electrolysis process.

For more information, contact Lou Riepl at (208) 334-9574.

Idaho National Laboratory