NEWS SERVICE

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Public and Private Sectors Team up for Clean Air

Web site helps students find air pollution answers

HOBOKEN, N.J. — The Center for Innovation in Engineering and Science Education (CIESE) at Stevens Institute of Technology has joined with Northeast States Coordinated for Air Use Management (NESCAUM) and the U.S. Environmental Protection Agency (EPA) to develop an educational Web site aimed at students in grades 6 – 9 called "*Air Pollution: What's the Solution?*." The site was officially launched today at an event held at Stevens Institute of Technology with Alan J. Steinberg, EPA Regional Administrator, George Korfiatis, Dean of Stevens' Charles V. Schaefer Jr. School of Engineering, Alycia Gilde, Outreach Coordinator for NESCAUM, and seventh and eighth graders from the Philip G. Vroom School in Bayonne, New Jersey.

The students demonstrated for the partners how the lessons on the site can effectively engage students and help them learn about air quality. The Web site teaches about causes and health effects of air pollution in general and, specifically, ground-level ozone and particle air pollution. The site is located at www.stevens.edu/ciese/curriculum/airproj/.

"Air Pollution: What's the Solution? engages students in real-world investigations about the quality of the air we breathe," said EPA Regional Administrator, Alan J.

Steinberg. "I shared the curiosity of seventh and eighth graders as they used this Web site to demonstrate how particle pollution affects everyone's health and how people can cause and prevent air pollution."

Air quality can have a significant impact on human health. Air pollutants, such as ground level ozone (created by chemical reactions between oxides of nitrogen and volatile organic compounds in the presence of sunlight) and particulate matter (a combination of dirt, dust, pollens, molds, aerosols, etc.) are especially harmful to people with asthma and chronic obstructive pulmonary disease. Exposure to particulate matter can cause wheezing, coughing, respiratory irritations and trigger asthma attacks. According to the American Lung Association's *State of the Air 2005 Report*, more than 800,000 New Jersey citizens are currently diagnosed with lung disease.

"These curriculum materials are providing students with opportunities to explore relevant, real-world problems using scientific databases and technological tools just as real scientists and engineers do," said Beth McGrath, Director of the Stevens Center for Innovation in Engineering and Science Education. "Students are able to experience, firsthand, the connection of the science and mathematics principles they learn in the classroom to actual phenomena that impacts their own lives. This helps teachers address the common question, 'Why do I need to know this?' and, as a result, students make a greater investment in their learning."

"NESCAUM is proud to work with Stevens and EPA on the development of an educational tool that will not only teach youth the science and meaning behind air quality issues, but promote future leadership and environmental stewardship," said Arthur Marin, Executive Director of NESCAUM. "It is important to give youth the opportunity to engage in meaningful activities that will make a difference in the community they are living in."

With EPA funding, Stevens developed the educational materials based on real-time air quality data arrayed on the EPA's AIRNow website. The Web site developed by Stevens features flexible teaching materials that correlate with state and national education standards and foster math, science, communication and critical thinking skills. The site correlates with EPA's Air Quality Index, a scale developed to indicate how clean the air is, which can be found at www.airnow.gov.

About EPA

EPA, the federal agency whose mission is to protect human health and the environment, also provides environmental education resources to students and teachers. Teachers can use *Air Pollution: What's the Solution?* to help young people learn about the air we breathe and how it is affected by mobile and stationary sources of air pollution. The partnership with NESCAUM and Stevens highlights the importance of combining public and private sector resources to reach the public. EPA's environmental education Web site for teachers is <u>www.epa.gov/teachers</u>

About NESCAUM

NESCAUM is an association for the air pollution authorities of New York, New Jersey and the six New England states, NESCAUM has been involved in the development of *Air Pollution: What's the Solution?* from the start. NESCAUM believes that by educating young people about the sources of air pollution and the effects of air pollution on their health this curriculum will foster an engaged and supportive new generation committed to protecting and improving air quality. Additional information may be obtained from NESCAUM's Web site at

www.nescaum.org.

About Stevens Institute of Technology

Established in 1870, Stevens offers baccalaureate, masters and doctoral degrees in engineering, science, computer science, management and technology management, as well as a baccalaureate in the humanities and liberal arts, and in business and technology. Located directly across the Hudson River from Manhattan, the university has enrollments of approximately 1,780 undergraduates and 2,700 graduate students, and a current enrollment of 2,250 online-learning students worldwide. Additional information may be obtained from its web page at www.Stevens.edu.

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