William H. Yelverton, Supervisory Engineer in EPA's National Risk Management Research Laboratory

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Area of expertise: Mr. Yelverton is chief of the Energy and Natural Systems Branch (ENSB) within NRMRL's Air and Energy Management Division, overseeing computational, laboratory and field research efforts on environmental implications and mitigation options associated with changing energy and natural systems. Specific research interests include:

- Energy and agricultural system technologies and analysis
- Emerging challenges to meeting environmental goals (e.g. changes in energy and agriculture production and use)
- Cost-effective strategies and best management practices that enable both environmental planners and industry leaders to meet common goals
- Mechanical systems design and improvement (e.g. efficiency)

Select publications:

Dodder, R. S., Barnwell, J. T., & **Yelverton, W. H.** (2016). Scenarios for Low Carbon and Low Water Electric Power Plant Operations: Implications for Upstream Water Use. Environmental Science & Technology, 50(21):11460-11470.

Aitken, M., Loughlin, D., Dodder, R., & **Yelverton, W.** (2015). Economic and environmental evaluation of coal-and-biomass-to-liquids-and-electricity plants equipped with carbon capture and storage. Clean Technologies and Environmental Policy, 18(2):573-581.

Cameron, C., **Yelverton, W.**, Dodder, R., & West, J. J. (2014). Strategic responses to CO2 emission reduction targets drive shift in U.S. electric sector water use. Energy Strategy Reviews, 4:16-27.

Loughlin, D. H., **Yelverton, W. H.**, Dodder, R. L., & Miller, C. A. (2013). Methodology for examining potential technology breakthroughs for mitigating CO2 and application to centralized solar photovoltaics. Clean Technologies and Environmental Policy, 15(1):9-20.

Lenox, C., R. Dodder, C. Gage, Dan Loughlin, O. Kaplan, and W. **Yelverton**. EPA U.S. Nine-region MARKAL Database, Database Documentation. US Environmental Protection Agency, Cincinnati, OH, EPA/600/B-13/203, 2013.

Dodder, R., Felgenhauer, T., **Yelverton, W.**, & King, C. (2012). Water and Greenhouse Gas Tradeoffs Associated with a Transition to a Low Carbon Transportation System. Proceedings of the Asme International Mechanical Engineering Congress and Exposition, 2011, Vol 1, 531-547.

View other research publications by William Yelverton

Education:

- B.S., North Carolina State University, Raleigh, NC; Aerospace Engineering, 2002
- M.S., North Carolina State University, Raleigh, NC; Mechanical Engineering, 2008

Professional Experience:

- Supervisory Environmental Engineer, US Environmental Protection Agency, RTP, NC 2013-present
- Environmental Engineer, US Environmental Protection Agency, RTP, NC 2007-2013
- Mechanical Design Engineer, Altec Industries, Creedmoor, NC, 2005-2007
- Aerospace Engineer, Naval Air Systems Command (NAVAIR), Marine Corps Air Station (MCAS) Cherry Point, NC, 2003-2005

Affiliations and Certifications

- Licensed Professional Engineer (PE) in the state of North Carolina
- Air & Waste Management Association
- Ohio Coal Research Consortium – Review Committee Member (previous)
- Illinois Clean Coal Institute – Proxy Committee Member (previous)
- Sigma Gamma Tau National Honor Society in Aerospace Engineering, 2002

Science Matters: Breaking Through? Evaluating Technologies for Greenhouse Gas Mitigation