

Andrew J. Burnham

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Experience

Predoctoral Researcher – Argonne National Laboratory – Argonne, IL – 7/04 to present

- Collecting vehicle weight, vehicle component weight distribution, and material composition of vehicle components for several vehicle types of light and heavy duty vehicles for use in the GREET 2 model
- Helping visiting scholars from China learn about the GREET Model
- Updating the AirCred model that calculates the emission credits of alternative fueled vehicles as compared to a conventional models for use by fleet managers in Clean Cities

Graduate Researcher – Institute of Transportation Studies – Davis, CA – 4/03 to 7/04

- Examined coal gasification as a hydrogen production pathway
- Compiled the costs of hydrogen fueling stations
- Investigated hydrogen-enriched CNG buses as an option to meet the 2007 California Air Resources Board emission standards

Intern – Metal Technologies, Inc. – West Allis, WI – Summer 2002

- Documented emission factors for foundry processes at all Metal Technologies plants
- Created process flow and instrumentation diagrams for wastewater treatment facilities of two plants
- Assisted with completion of plant permits
- Created and maintained databases

Engineering Assistant – Department of Public Works – Milwaukee, WI – Summer 2001

- Supervised road construction crews
- Recorded and paid contractor's bid items
- Created and maintained databases

Intern – Milwaukee Metropolitan Sewerage District – Milwaukee, WI – Summer 2000

- Worked on GIS projects with MicroStation
- Created and maintained databases
- Worked on a survey crew

Intern – Southeastern Wisconsin Regional Planning Commission – Waukesha, WI – Summer 1999

- Delineated and coded watershed maps
- Aquatic plant surveys
- Created and maintained databases
- Ran simulations in flood control computer programs
- Planimeter work

Computer Aide – Civil Engineering Department, Northwestern University – Evanston, IL – 9/98 to 6/02

- Created and maintained databases
- Technical support

Publications

Burnham, A., A. Burke, K. Collier, M. Forrest, Z. McCaffrey, and M. Miller, 2004, "Hydrogen Bus Technology Validation Program: Analysis and Update," Proceedings, Annual Meeting of the National Hydrogen Association, Los Angeles, CA.

Sellmeyer, S., C. Saricks, and A. Burnham, 2005, "AirCRED 4.0 Programmer's Manual," Argonne National Laboratory Report ANL-05/25.

Saricks, C., A. Burnham, and S. Sellmeyer, 2005, "AirCRED 4.0 User's Guide," Argonne National Laboratory Report ANL-05/24.

Moon, P., A. Burnham, and M. Wang, 2006, "Vehicle-Cycle Energy and Emission Effects of Conventional and Advanced Vehicles," SAE Technical Paper No. 2006-01-0375.

Burnham, A., M. Wang, and Y. Wu, 2006, "Development and Applications of GREET 2.7 – The Transportation Vehicle-Cycle Model," Argonne National Laboratory Report ANL/ESD/06-5.

Education

University of California, Davis – M.S., Transportation Technology & Policy, 2004; GPA: 3.8

Northwestern University – B.S., Environmental Engineering, 2002; GPA: 3.4