

## JASON T. HARRIS

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### EDUCATION

**Ph.D., 2007, Purdue University, West Lafayette, Indiana**

**Degree in Health Physics**

GPA: 3.65 (4.0 Scale)

Dissertation: "Public Health Analysis Resulting from Nuclear Power Plant Radiological Emissions"

Advisor: David W. Miller, Ph.D.

Co-advisors: George Sandison, Ph.D.  
Herman Cember, Ph.D.

**M.S., 2002, University of Illinois at Urbana-Champaign, Urbana, Illinois**

**Degree in Nuclear Engineering**

GPA: 3.60 (4.0 Scale)

Thesis: "Comparative Study of Commercial Nuclear Power Plant Radiological Effluents"

Advisor: David W. Miller, Ph.D.

**B.S., 1995, University of Tampa, Tampa, Florida**

**Majors: Biology and Marine Science, Minor: Chemistry**

GPA: 3.33 (4.0 Scale)

### TEACHING EXPERIENCE

2008 – present

**Assistant Professor, Idaho State University, Department of Physics, Health Physics Program, Pocatello, Idaho**

- \* Instructor for Health Physics courses
- \* Develop course materials and curriculum
- \* Full responsibility for all courses taught
- \* PHYS 432/532 – Radiation Physics II, Principles of Health Physics II (Junior - Graduate)
- \* PHYS 488/588 – Advanced Radiobiology (Junior - Graduate)
- \* PHYS 417/517 – Industrial Ventilation and Aerosol Physics (Junior - Senior)
- \* PHYS 601 – Quantitative Methods in Physics (Graduate)

2003 – 2007

**Graduate Teaching Instructor, Purdue University, School of Health Sciences, West Lafayette, Indiana**

- \* Instructor for Health Physics and Radiological Health courses
- \* Design and teach laboratory experiments
- \* Develop course materials and curriculum
- \* Full responsibility for all courses taught
- \* HSCI 322L – Radiation Dosimetry Laboratory (Junior - Senior)

- \* HSCI 514 - Radiation Instrumentation Laboratory (Junior - Graduate)
- \* HSCI 438 - Reactor Health Physics (Junior - Graduate)
- \* HSCI 534 - Applied Health Physics (Junior-Graduate)

2004 - 2007

**Health Physics Guest Lecturer**, Purdue University, School of Health Sciences, West Lafayette, Indiana

- \* Lecturer in health physics and nuclear engineering topics for several classes at Purdue University and University of Illinois
- \* Course examples: Introduction to Health Physics, Principles of Public Health Science, Introduction to Nuclear Engineering, Health Effects of Non-ionizing Radiation

1999 - 2002

**Graduate Teaching Assistant**, University of Illinois, Department of Nuclear, Plasma, and Radiological Engineering, Urbana, Illinois

- \* Assisted in teaching radiation protection class (NPRES 241)
- \* Taught several classes during instructor's absence
- \* Tutored and advised students

1993 - 1995

**Student Tutor**, University of Tampa, Honors Program, Tampa, Florida

- \* Tutored and mentored biology and marine science students

## RESEARCH EXPERIENCE

2003

**Research Fellow**, Los Alamos National Laboratory, Luminescence Geochronology Laboratory, Earth and Environmental Sciences Division, Los Alamos, New Mexico

- \* Performed Pu dose-rate calculations for geochronology and dosimetry applications
- \* Performed laboratory research on thermoluminescence (TL), optically stimulated luminescence (OSL), and infrared spectra luminescence (IRSL) dating and dose rate determination techniques

1999 - 2002

**Graduate Research Assistant**, University of Illinois, Department of Nuclear, Plasma, and Radiological Engineering, Urbana, Illinois (North American Technical Center, Nuclear Energy Agency)

- \* Reviewed analyses and performed statistics on occupational dose exposure and radioactive effluent releases of commercial nuclear power plants
- \* Develop and maintain database programs and Internet web sites

1999

**Research Fellow**, University of Illinois, Department of Nuclear, Plasma, and Radiological Engineering, Urbana, Illinois

- \* Performed research focusing on nuclear fusion by means of inertial electrostatic confinement
- \* Designed, constructed and conducted experiments
- \* Compiled and drafted research reports and funding proposals

## PROFESSIONAL EXPERIENCE

- 2002 - present      **Consultant**, North American Technical Center, University of Illinois, Department of Nuclear, Plasma, and Radiological Engineering, Urbana, Illinois
- \* Act as senior consultant for nuclear power plant environmental and radioactive waste issues
  - \* Direct the NATC Public Radiation Research Program
  - \* Develop nuclear power databases
- 1999-2000      **Engineering Intern**, Amergen, Clinton Power Station, Nuclear Support Engineering Division, Clinton, Illinois
- \* Reviewed and maintained plant engineering calculations
  - \* Performed data entry
  - \* Supervised and trained engineering interns
- 1997 - 1998      **Research Engineer/Health, Safety and Radiation Officer**, Clean Energy Technologies, Inc., Sarasota, Florida
- \* Performed research focusing on new hydrogen energy technologies, radioactive amelioration, environmental remediation, isotope separation, and polymer synthesis
  - \* Designed, constructed and conducted experiments
  - \* Developed and implemented the Radiation Safety Program, Chemical Hygiene Plan, and Safety Program
  - \* Trained and supervised new laboratory personnel
  - \* Analyzed and compiled data for report
  - \* Experienced with NRC, Florida State DoH, and EPA regulations
  - \* Performed chemical analyses and prepared reagents
- 1995 - 1997      **Environmental Scientist/Chemical Hygiene Officer**, Maritco Bioassay Laboratory, Sarasota, Florida
- \* Performed bioassay toxicity tests for marine and freshwater effluents according to U.S. EPA and FL DEP regulations
  - \* Performed water chemistry analyses and reagent preparations
  - \* Maintained laboratory cultures
  - \* Performed statistical analyses and compiled and interpreted data for government and client reports
  - \* Developed and implemented the company Chemical Hygiene Plan and Safety Program
  - \* Trained and supervised employees
- 1995      **Laboratory Technician**, Bio Lab of Florida, Port Charlotte, Florida
- \* Performed bioassay toxicity tests for marine and freshwater effluents
  - \* Performed water chemistry analyses
  - \* Maintained laboratory cultures

## ADDITIONAL EXPERIENCE

- 1995 - 1999      **SCUBA Instructor**, Ocean Pro Dive Shop, Sarasota, Florida
- \* Current PADI Master SCUBA Diver Trainer and Enriched Air Nitrox Instructor
  - \* Taught various courses in SCUBA diving to over 300 people
  - \* Organized and led diving trips throughout Florida and the Caribbean

- \* Participated in retail sales for the business

## AWARDS, HONORS, FELLOWSHIPS, AND SCHOLARSHIPS

- \* Purdue University Bilsland Dissertation Fellowship, 2007-2008  
Purdue University School of Health Sciences Graduate Student Service Award, 2006-2007
- \* Department of Energy OCRWM Fellowship, 2002-2005
- \* Department of Energy NE/HP Fellowship, 2002 (declined)
- \* Purdue University School of Health Sciences Graduate Teaching Award(Committee for the Education of Teaching Assistants), 2004-2005, 2006-2007
- \* Purdue University School of Health Sciences Wayne V. Kessler Award (outstanding graduate student), 2004-2005
- \* Purdue University Graduate School Excellence in Teaching Award, 2004-2005
- \* International Radiation Protection Association (IRPA)-11 Congress Young Scientist Travel Award, 2004
- \* Purdue University Frederick N. Andrews Fellowship, 2005-2007
- \* American Statistical Association Conference on Radiation and Health New Investigator Award, 2006
- \* Health Physics Society Annual Meeting Travel Award, 2000-2005
- \* American Nuclear Society Meeting Travel Award, 2001-2003
- \* Health Physics Society Summer School Scholarship, 2000
- \* University of Illinois INPO Graduate Fellowship, 1999
- \* University of Tampa Honors Program Graduate, 1995
- \* University of Tampa Presidential Scholarship, 1991 - 1995
- \* University of Tampa DeLo Scholarship, 1991 - 1995
- \* University of Tampa Honors Program Fellowship, 1993 - 1995
- \* National Dean's List, 1993 - 1995
- \* University of Tampa Honors Program Student of the Year, 1993

## GRANTS

- \* *U.S. Nuclear Regulatory Agency. ISU Faculty Development Grant Program.*, authored by Jason Harris, PI listed as Dan Dale, funded August 2008 (\$412,000), period - August 1, 2008 - July 31, 2011.
- \* *U.S. Nuclear Regulatory Agency. ISU Fellowship Program.* joint submittal with Nuclear Engineering, Jason Harris, PI, funded August 2008 (\$394,219), period - August 1, 2008 - July 31, 2012.
- \* *U.S. Nuclear Power Plant Effluent Database*, US EPA, 2002-2003, \$10,000 (with David Miller)
- \* *U.S. Nuclear Power Plant Radioactive Waste Database*, US EPA, 2002-2003, \$10,000, (with David Miller)

## PROFESSIONAL AFFILIATIONS

- \* American Academy of Health Physics, Associate Member, 2006-present
- \* American Nuclear Society, 1999-present; Board of Directors, 2003-2005
- \* American Physical Society, 2007-present

- \* Beta Beta Beta (National Biological Honor Society), 1991-2002; President, University of Tampa branch, 1994-1995
- \* Health Physics Society, 1997-present; President, Purdue University branch, 2002-2004; Advisor, Purdue University branch, 2004-2007; Health Physics Hoosier Chapter
- \* Eastern Idaho Chapter, Health Physics Society, President, 2008-present
- \* North American Young Generation in Nuclear (NA-YGN), 2003-present

## PROFESSIONAL SERVICE

- \* IRPA 11 and 12 delegate for HPS, 2004-2012
- \* HPS Academic Education Committee, 2005-2008
- \* HPS Health Physics Student DVD Ad Hoc Committee, 2007-present
- \* RETS-REMP Workshop Steering Committee, 2004-present
- \* North American Technical Center Public Radiation Safety Research Program Effluent Expert Committee, 2002-present
- \* International ALARA Symposium Organizing Committee, 2000-present
- \* Science Teacher Workshop and Civil Defense Survey Meter Distribution organizer (Health Physics Society, American Nuclear Society, North American Technical Center), 2000-present

## UNIVERSITY SERVICE

- \* Idaho State University – Faculty Advisor, Student Branch of the Health Physics Society, 2008-present
- \* Idaho State University – College of Education Teacher Education Program Admission interviewer, 2008-present
- \* Idaho State University – WeLEAD Mentoring Program Pilot Project, 2008-present
- \* Purdue University Teaching Academy, Associate Fellow, 2005-2007
- \* Purdue University School of Health Sciences Grade Appeals Committee, 2003-2007
- \* University of Tampa Environmental Protection Coalition President, 1994-1995

## PROFESSIONAL TRAINING

- \* American Board of Health Physics Certification Examination – Part 1 passed, 07/2005
- \* Purdue University Graduate Teacher Certificate, 2006
- \* Radiation Worker II Certification, Department of Energy, 2003
- \* Radiation Safety Officer Certification, Engelhardt and Associates, 1997
- \* Statistics in Health Physics, HPS Summer School, 2000

## PRESENTATIONS

HARRIS, J. and MILLER, D. Radiological impact of commercial nuclear power plant releases in the United States: a 12-year study. 12<sup>th</sup> International Congress of the International Radiation Protection Association. October 19-24, 2008. Buenos Aires, Argentina.

HARRIS, J. and MILLER, D. Airborne H-3 Recapture in Frost at a Nuclear Power Reactor. HPS Annual Meeting. July 13-17, 2008. Pittsburgh, PA.

HARRIS, J. Airborne H-3 Recapture in Frost at a Nuclear Power Reactor. 18<sup>th</sup> Annual RETS-REMP Workshop. June 23-25, 2008. Charlotte, NC.

HARRIS, J. Airborne H-3 Recapture in Frost at a Nuclear Power Reactor. The John Horan HPS Symposium. April 26, 2008. Pocatello, ID.

HARRIS, J.T. Evaluation of U.S. nuclear power plant radiological environmental monitoring programs. Health Physics Society Annual Meeting (Portland, Oregon, July 2007).

HARRIS, J. T., MILLER D. W. and BROWN T. Cook Nuclear Plant experience with storm water tritium discharges. 17<sup>th</sup> Annual RETS/REMP Workshop (Philadelphia, Pennsylvania, June 2007).

HARRIS, J. T. Overview of U.S. radiation protection programs responses to tritium in groundwater. 2007 International ISOE ALARA Symposium and EPRI Radiation Protection Conference (Ft. Lauderdale, Florida, January 2007).

HARRIS, J. T. North American Technical Center Public Radiation Safety Research Program REMP Study. 16<sup>th</sup> Annual RETS/REMP Workshop (Mashnatucket, Connecticut, June 2006).

HARRIS, J. T. Public Dose Analysis of Nuclear Power Plant Radiological Emissions. American Statistical Association 2006 Conference on Radiation and Health (Monterey, California, June 2006).

SANDISON, G. A., ZIEMER P. L. and HARRIS, J.T. Health Physics at Purdue University. Health Physics Society Annual Meeting (Providence, Rhode Island, June 2006).

HARRIS, J. T. U.S. Tritium Modeling using the NATC/UNSCEAR Effluent Database. 2006 EPRI Radiation Protection Conference and North American ISOE ALARA Symposium (Orlando, Florida, January 2006).

HARRIS, J.T. Public Doses resulting from nuclear power. Health Physics Society Annual Meeting (Spokane, Washington, July 2005).

HARRIS, J. T. and D. W. MILLER. U.S. Nuclear Power Sister Plant Radiological Effluent Release Comparisons. 14<sup>th</sup> Annual RETS/REMP Workshop (Syracuse, New York, June 2004).

MILLER, D. W. and J. T. HARRIS. Update on IRPA-11 Meeting and ICRP new recommendations. 14<sup>th</sup> Annual RETS/REMP Workshop (Syracuse, New York, June 2004).

HARRIS, J. T. and D. W. MILLER. Trend Analysis of commercial U.S. nuclear power plant radiological effluents. Proceedings of the 11th International

Congress of the International Radiation Protection Association, 23-28 May 2004, Madrid, Spain, 2004.

HARRIS, J. T. and D. W. MILLER. Trend Analysis of commercial U.S. nuclear power plant radiological effluents. 2004 NATC ISOE ALARA Symposium (Coral Gables, Florida, January 2004).

SHELDON, R. J., HARRIS J. T. and K. LEPPER.  $\beta$ - $\gamma$  dose rate relationships: evaluating a practical application for Pajarito Plateau sediments. The 2<sup>nd</sup> North American Luminescence Dating Workshop (Albuquerque, New Mexico, August 2003).

HARRIS, J. T. Comparative study of commercial nuclear power plant radiological effluents. Master of Science degree thesis, Department of Nuclear, Plasma, and Radiological Engineering, University of Illinois, August 2002.

HARRIS, J. T. and D. W. MILLER. The past, present, and future of the NATC's Public Radiation Safety Research Program. 12<sup>th</sup> Annual RETS/REMP Workshop (Atlantic City, New Jersey, June 2002), EPRI Radiation Protection Technology Conference (Baltimore, Maryland, October 2002).

HARRIS, J. T. and D. W. MILLER. The NATC's role in national radiological emergency preparedness. Health Physics Society Annual Meeting (Tampa, Florida, June 2002).

HARRIS, J. T. and D. W. MILLER. Comparative Study of U.S. nuclear power plant gaseous and liquid effluent releases. ANS Student Mini-Conference (Reno, Nevada, November 2001).

HARRIS, J. T. and D. W. MILLER. Trend Analysis of 1994-1999 U.S. nuclear power plant gaseous and liquid effluent releases. 11<sup>th</sup> Annual RETS/REMP Workshop (Burlington, Vermont, June 2001).

HARRIS, J. T. and D. W. MILLER. A report and comparison of U.S. nuclear power plant gaseous releases from 1994-1999. Health Physics Society Annual Meeting (Cleveland, Ohio, June 2001).

HARRIS J. T. Development of effluent databases for the U.S. nuclear power industry. International ALARA Symposium (Anaheim, California, January 2001).

MILLER, D. W. and J. T. HARRIS. North American gaseous and liquid effluent databases for UNSCEAR reports & utility benchmarking. 10<sup>th</sup> Annual RETS/REMP Workshop (Cape Cod, Massachusetts, June 2000).

## PUBLICATIONS

Harris, J. T. and Miller D. W. Radiological impact of commercial nuclear power plant releases in the United States: a 12-year study. *in press. Proceedings of the 12<sup>th</sup> International Congress of the International Radiation Protection Association*, June 2008.

HARRIS, J. T. and MILLER D. W. Radiological effluents released by U.S. commercial nuclear power plants from 1995-2006. *in press. Health Physics Journal*, March 2008.

HARRIS, J. T., MILLER D. W., and FOSTER D. W. Tritium recapture behavior at a nuclear power reactor due to airborne releases. *Health Phys.* 95(2): 203-212; 2008.

HARRIS J. T. and LEPPER K. Modeling the effects of anthropogenic radionuclides on luminescence dating of modern stream sediments of the Pajarito Plateau, New Mexico. *unpubl.* Submitted to *New Mexico Geology*, March 2007.

Harris, J. T. and Miller D. W. Trend analysis of commercial U.S. nuclear power plant radiological releases. In: *Proceedings of the 11<sup>th</sup> International Congress of the International Radiation Protection Association*, Madrid, Spain, 23-28 May 2004. (IRPA-11 Secretariat Office, Madrid, 2004) CD-ROM paper 6F7.

PRICE W. W., HEARD R. W., HARRIS J. T., and MCCOY C. Crustacea of the Cayman Islands, British West Indies. I. records of mysids from shallow water non-reef habitats. *Gulf and Caribbean Research* 14: 35-52; 2002.

#### INDIVIDUAL STUDENT GUIDANCE

Member of Master's Thesis Committees (not as primary advisor): 1

Member of Ph.D. Thesis Committees (not as primary advisor): 3

Member of Master's Thesis Committees (as primary advisor): 2

Member of Ph.D. Thesis Committees (as primary advisor): 1

#### REFERENCES

David W. Miller  
Adjunct Assistant Professor, Department of Nuclear, Plasma and Radiological  
Engineering  
University of Illinois at Urbana-Champaign  
103 S. Goodwin Ave.  
Urbana, IL 61801  
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George H. Sandison  
Professor of Medical Physics and Head, School of Health Sciences  
Purdue University  
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Herman Cember  
Visiting Professor of Health Sciences, School of Health Sciences  
Purdue University  
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West Lafayette, IN 47907  
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Robert Landolt  
Professor Emeritus of Bionucleonics, School of Health Sciences  
Purdue University  
1000 Hillcrest Road  
West Lafayette, IN 47906  
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Kenneth Lepper  
Assistant Professor, Department of Geosciences  
North Dakota State University  
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Fargo, ND 58105  
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Wayne Price  
Dana Professor of Biology, Department of Biology  
University of Tampa  
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