The Department of Environmental and Radiological Health Sciences (ERHS) at Colorado State University (CSU) has recently established a specific area of specialization in radiochemistry within its existing graduate program. The program main objective is to increase the pool of appropriately educated and trained radiochemists in the USA. This undertaking is supported in part, through the sponsorship of the U.S. Department of Energy (DOE), Office of Nuclear Energy, Science and Technology, Radiochemistry Education Award Program, administered by South Carolina University Research and Education Foundation. The programs core curriculum is designed to provide in-depth integrated coverage of radiochemistry and related areas, linked with a summer internship at selected DOE-supported laboratories. The internship component is intended to provide students with hands-on experience with various laboratory activities and interaction with radiochemistry personnel. Laboratory facilities participating in the internship program include: the Carlsbad Environmental Monitoring & Research Center, The Savannah River Ecology Laboratory, Los Alamos National Laboratory and Argonne National Laboratory. Three highly qualified students were recruited and admitted into the program with full financial support (stipends and tuition) for the current academic year 2002-03, and all are making good progress toward their M.S. degree. Program details are featured at the following web site:

http://www.cvmbs.colostate.edu/radiology/grad_program s/radiochem/radiochem3.html. The ERHS department and CSU are committed to the success and long-term viability of this program and is providing all instructional facilities and equipment needed.

P.3

THE UNIVERSITY OF MICHIGAN STUDENT HEALTH PHYSICS SOCIETY'S RADIATION AND HEALTH PHYSICS WORLD WIDE WEB SITE. J.G. Dreyer, W.G. West, D.A. Granzow, R.B. Gunnett, A.F. Kalchik, and A.F. Kearfott (University of Michigan, 2355 Bonisteel Blvd., Ann Arbor, MI 48109)

The University of Michigan Student Health Physics Society's (UMSHPS) Radiation and Health Physics World Wide Web Site is an informative database of radiation and health physics related topics. With over 500 visitors each day, the UMSHPS web site is one of the most cited references of major search engines, providing professionals and the general public with a valuable resource for information and research. Users of this site can either search for information by topic or submit questions to the qualified members of UMSHPS. In recent months, progress has been made in replacing the site's older, less versatile framework with new search

engines and refined submittal forms, as well as a "Frequently Asked Questions" section. Within the database, references will include brief summaries of the site's available information and target audience. Although this progress has been beneficial for the site, the UMSHPS is looking for professional opinions and ideas to further the services that this online resource can provide to the profession and to the general public.



MANAGING DATA QUALITY FOR THE NIOSH CLAIMS TRACKING SYSTEM. L.S. Rafales, 1 N. Kuo, 2 P.W. Wallace, 3 J.V. Wierowski, 4 and D.G. Schuster 3 (1 Advanced Technologies Laboratories International, Inc., 2100 Sherman Avenue, Suite 250, Cincinnati, OH 45219; 2 National Institute for Occupational Safety and Health; 3 Oak Ridge Associated Universities, Inc.; 4 MJW Corporation Inc.)

A database system has been developed to track claims processed by NIOSH under the Energy Employees Occupational Illness Compensation Program. The management of data quality is a critical element to the success of this effort. Four core objectives define the data quality program: 1) to define intended uses for the data and establish data quality standards, 2) to prevent the introduction of erroneous information, 3) to diagnose and track data quality, and 4) to correct known errors or mitigate their influence. This presentation focuses on the use of data quality standards that are specific and quantifiable and which have been used to develop an ongoing historical picture of data quality that corresponds with the development and evolution of the database. Data quality indicators, such as the logical consistency of selected data elements (or the lack thereof), are presented along with diagnostic procedures that detect data anomalies in predicted patterns.

Accelerator Health Physics

P.5

BREMSSTRAHLUNG CALCULATIONS AT CAMD'S SITE BOUNDARY. M.L. Day (Louisiana State University, 6980 Jefferson Highway, Baton Rouge, LA 70806)

The CAMD facility consists of a 200 MeV Linac (operated at 1 Hz) as the injector for a 1.3 GeV Synchrotron Ring. This low duty cycle complicates the use of electronic detectors to assess beam intensity during injection. There is no booster ring for the facility. The storage ring is unique in that it has no roof but is enclosed by a shield wall of only 2.1 m in height. The

HEALTH PHYSICS

The Radiation Safety Journal

June 2003

Volume 84

Supplement

ISSN 0017-9078

CONTENTS

FORTY-EIGHTH ANNUAL MEETING OF THE HEALTH PHYSICS SOCIETY 20–24 July 2003 San Diego, California

Abstracts of Papers Presented at the Meeting

Events Calendar	Appears at the front of this	issue
Plenary Session (MAM)		S147 S148 S186
Monday Afternoon (MPM) Tuesday Morning (TAM) Tuesday Afternoon (TPM)		S200
Wednesday Morning (WAM)	••••••	S227 S244
Thursday Morning (THAM)		S257
Author Index to Abstracts		S273

On the cover: A panda at the San Diego Zoo. Photo courtesy of the San Diego Convention and Visitors Bureau.

Health Physics Society Office: Mr. Richard J. Burk, Jr., Executive Secretary, Health Physics Society, 1313 Dolley Madison Blvd., Suite 402, McLean, VA 22101. Tel. (703) 790-1745. Member subscribers should inform the Executive Secretary of changes of address 90 days in advance. Application for membership should be made to the Executive Secretary of the Health Physics Society.

Health Physics Editorial Office: Amy Gudelski, Managing Editor, Editorial Office, Charleston Southern University, 9200 University Blvd., Campus Library, P.O. Box 118087, Charleston, SC 29423-8087. (843) 863-7556. Fax (843) 863-7628.

Subscriptions Office: Subscriptions are available through Customer Service at 16522 Hunters Green Pkwy., Hagerstown, MD 21740-2116. Tel. (800) 638-3030 or (301) 223-2300.

Publishing and Advertising Offices: Lippincott Williams & Wilkins, 351 West Camden St., Baltimore, MD 21201-2436.

Published monthly, two volumes per annum. Annual institutional subscription rate (2003): US \$1,204.00. Personal subscription rate (2003): US \$348.00. Members of the Health Physics Society may receive the journal as part of their annual membership dues (\$15.00 of which is designated for the subscription; \$70.00 for each IRPA member). Price includes surface postage and insurance. Air mail subscriptions extra. Prices are subject to change without notice.

Health Physics is a refereed journal and is published monthly. *Back Issues:* Back issues of all previously published volumes, in both hard copy and on microfilm, are available direct from Pergamon Press, Inc., 395 Saw Mill Road, Elmsford, NY 10523.

Copyright © 2003 Health Physics Society

Back issues beginning with Volume 74 are available from Lippincott Williams & Wilkins.

Statements and opinions expressed in publications of the Health Physics Society or in presentations given during its regular meetings are those of the author(s) and do not necessarily reflect the official positions of the Health Physics Society, the editors, or the organizations with which the authors are affiliated. The editor(s), publisher, and Society disclaim any responsibility or liability for such material and do not guarantee, warrant, or endorse any product or service mentioned. Official positions of the Society are established only by its Board of Directors.

Health Physics (ISSN 0017-9078) published monthly by Lippincott Williams & Wilkins. Printed in the U.S.A. Periodicals postage paid at Hagerstown, MD, and at additional mailing offices.

Postmaster: Send address changes to: Health Physics, Lippincott Williams & Wilkins, 16522 Hunters Green Pkwy., Hagerstown, MD 21740-2116.

Indexed in Current Contents (Life Sciences, Science Citation Index, SciSearch Database, ISI/BioMed, Research Alert), BIOSIS, Index Medicus, MEDLINE, Excerpta Medica, Chem. Abstr., WRC Info., Environ. Per. Bibl., Cancer Journals and Serials, Applied Health Phys. Abstr., Aqualine Abstr., Current Awareness in Biological Sciences, Energy Res. Abstr., Congress. Info. Serv. Indep, ASSIA, Cambridge Scientific Service, PASCAL-CNRS Database, NISC's Fish and Fisheries Worldwide, and Energy Database.