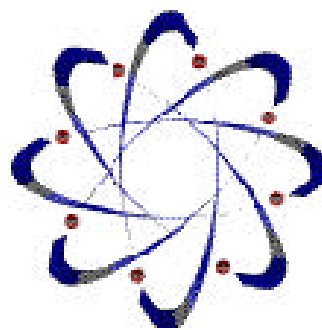


# RADIATION REPORT



Vol. 27, No. 1

BUREAU OF RADIATION CONTROL

SPRING - 2004

## Industrial Radiography Program Adopts Renewals Online

The Texas Department of Health, Bureau of Radiation Control's Industrial Radiography Program is making it easier for certified industrial radiographers to schedule and pay for renewal exams online. Certification ID cards are good for five years.

Any certified radiographer whose certification ID card expires within the next six months or has expired within the last three months of the current date will be eligible to pay the renewal exam fees online at the State of Texas website: [www.TexasOnline.com](http://www.TexasOnline.com). The proposed date for the Industrial Radiographer Certification Renewal online payment process is expected to begin on May 31, 2004.

The online process is a simple one. The first step is to log in by entering the six-digit identification number on your certification ID card and the last four digits of your social security number. This step verifies eligibility. You will be given the opportunity to schedule and pay for a renewal exam at this time. Any change in address or employment information should also be completed in conjunction with paying your renewal exam fee. The next steps are to answer required questions, review information entered, and



then proceed to the payment page. Texas Online is a secure site that accepts payments through credit cards (Visa, MasterCard, Discover and American Express) and by an Automated Clearing House (ACH) electronic check payment method. The renewal exam fee will also include subscription and convenience fees determined by the Texas Online Authority. BRC will send a confirmation of your scheduled exam date.

Paying for a certification renewal exam online does not constitute certification renewal. The certification is renewed only upon successful completion of the certification renewal exam and approval of required training documentation by the Texas Department of Health, Bureau of Radiation Control.

**ProtectTexas™**  
Texas Department of Health

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Benefits to users opting to renew online include access over the Internet 24 hours a day, seven days a week. The online renewal website will support Internet Explorer version 4.0 and above and Netscape version 4.0 and above browsers. Radiographers still have the option to schedule and pay by mail if they choose. For questions regarding the Industrial Radiography online payment and exam renewal process contact Jan Endahl at (512) 834-6688 extension 2229 or email: [Jan.Endahl@tdh.state.tx.us](mailto:Jan.Endahl@tdh.state.tx.us) and Ronda Sanders at (512) 834-6688 extension 2236 or email: [Ronda.Sanders@tdh.state.tx.us](mailto:Ronda.Sanders@tdh.state.tx.us).



## BRC Division Director Elected President of HPS

Ruth McBurney has recently been elected President-Elect of the Health Physics Society (HPS). HPS is a national scientific professional organization whose mission is to promote the practice of radiation safety. HPS members include approximately 6,000 scientists, physicians, engineers, lawyers, and other professionals involved in radiation safety in academia, industry, government, national laboratories, the Department of Defense, and other organizations.

Ms. McBurney is the Director of the Division of Licensing, Registration and Standards in the Bureau of Radiation Control, Texas Department of Health. She has worked in the field of radiation protection for over 25 years, having served in both the Arkansas and Texas state radiation control programs. Ms. McBurney received a B.S. Degree in biology from Henderson State University in Arkansas and a M.S. degree in Radiation Sciences from the University of Arkansas for Medical Sciences. She is a Certified Health Physicist.

Ms. McBurney has served as a Board of Directors member and Secretary of the Health Physics Society and is currently Chair of the organization's Strategic Planning Committee. She is also active in the Conference of Radiation Control Program Directors,



*Ruth McBurney, BRC Division Director of Licensing, Registration and Standards is the first person from a state regulatory program to attain President-Elect honor.*  
Photograph by Julie Davis

Inc. (CRCPD), having served as Treasurer and Chairperson of that organization. She was the 1994 recipient of the Gerald S. Parker Award of Merit, CRCPD's highest award. She is also a representative on the U.S. Nuclear Regulatory Commission's Advisory Committee for the Medical Use of Isotopes, and has served on the U.S. Food and Drug Administration's National Mammography Quality Assurance Advisory Committee.

Ms. McBurney will take office in July 2004. During her year as President-Elect, she will be visiting with HPS chapters throughout the country and assisting the President with leadership duties of HPS, including congressional and federal agency contacts and representation at meetings with other organizations. She will become President of the organization in the summer of 2005 and serve in that capacity until 2006.

# RADIOACTIVE MATERIAL AUTHORIZATIONS ON INDUSTRIAL LICENSES

By William Stringfellow

In the past year the Industrial Licensing Program has undertaken the task of obtaining more specific information concerning the radioactive material possessed by radioactive material licensees (e.g., the quantity (activity) of each specific radioisotope and the numbers of sources and/or devices authorized on each licensee). The information is being used for two purposes:

1. Financial Assurance - To determine if the total activities of isotopes authorized on the license exceeds the activity for which financial assurance would be required. Financial assurance is required to provide the Texas Department of Health (TDH), Bureau of Radiation Control (BRC) with a guarantee, by way of an approved financial instrument, that funds will be available for decommissioning sites, which might become contaminated from use or storage; and appropriate disposal of the radioactive material; and
2. Source Security - To support the national emphasis on radioactive material source security and tracking.

The request for additional detailed information on the devices authorized by industrial radioactive material licenses has been an on-go-

ing process, occurring during normal license amendment or renewal process. Often times, licensees will be informed that they need to submit additional possession and/or authorization information after submitting a request to amend their current license. This request to provide the information is included in the letter asking for additional information to complete the amendment action or as a letter informing the licensee that specific infor-

**More information concerning licensees specific to radioactive materials will be used for financial assurance and source security.**

mation will be needed during the next license amendment.

Once the licensing program receives the requested information, the data is compared to the latest license application and the last inspection report. The information on numbers of sources or devices is then used to amend License Condition 7 of the radioactive material license. The amendment will change or clarify the number of sources authorized by the license, usually by the removal of "No single source to exceed" in the isotope table and replacement by "X sources not to exceed Y Curies each," where "X" represents the number of sources of each isotope possessed by the licensee and "Y" represents the maximum activity of each radioisotope.

Before the amended license is issued, the total activity of each isotope authorized is determined, in order to verify that the amount of RAM possessed by the licensee does not exceed the amount that would require the licensee to provide financial assurance (See Texas Administrative Code Sections §289.252(ii)(3)-§289.252(ii)(8)). If the authorized activity is in excess of limits for requiring financial assurance, the TDH-BRC

will request the licensee to provide financial assurance before they can continue using the radioactive material. If no financial assurance is required, the amended license is issued. The TDH-BRC will check this requirement each time a ra-

dioactive material possession limit is increased and will also review it again during the license renewal.

In conjunction with the national emphasis on security of devices containing radioactive material, licensees are encouraged to analyze their existing needs for the authorizations on their current license and request an amendment to their license to remove those radioactive material authorizations that are no longer needed.

FOR MORE INFORMATION CONTACT:

MIKE DUNN  
CHIEF, INDUSTRIAL LICENSING PROGRAM  
(512) 834-6688, E XT. 2207

EMAIL:  
[Mike.Dunn@tdh.state.tx.us](mailto:Mike.Dunn@tdh.state.tx.us)

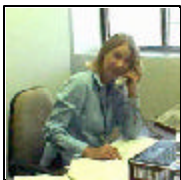
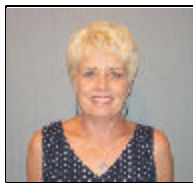


# BRC Personnel - - -

By Julie Davis

In recent months, various positions within the Texas Department of Health, Bureau of Radiation Control have become available in both the Central and Public Health Regional (PHR) Offices. Therefore, many BRC managers have been tasked with conducting interviews to select personnel to fill the vacant positions. The following staff members filled positions March 1 through April 1, 2004:

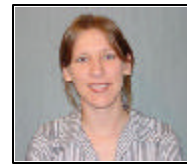
Katie Butler became the newest member of the BRC's Bureau Office Administrative Staff. Ms. Butler is a Clerk IV with the BRC File Room. Her duties require her to sort and distribute all of BRC's incoming and out-going mail. This includes processing certified mail, filing, faxing, and maintaining our photocopy machines. Prior to Ms. Butler's position with the BRC she worked 20 years for a title company in Austin. Ms. Butler can be reached by phone (512) 834-6688 extension 2218 or by email: [Katie.Butler@tdh.state.tx.us](mailto:Katie.Butler@tdh.state.tx.us).



Lisa Clark, RAM Inspector for the Division of Compliance and Inspection in Public Health Region 6 - Houston, has been

promoted from an Environmental Specialist IV to an Environmental Specialist V. Ms. Clark has worked for the BRC since 1991. As a RAM Inspector, she performs inspections of radioactive materials licensees. In addition, Ms. Clark performs incident and complaint investigations, and conducts presentations to various interested groups throughout the state. Prior to her employment with BRC she worked for Gulf Nuclear Industries and the University of Houston. You may contact Ms. Clark by phone (713) 767-3259 or by email: [Lisa.Clark@tdh.state.tx.us](mailto:Lisa.Clark@tdh.state.tx.us)

Latischa Hanson, now a Technical Reviewer with the Division of X-Ray Compliance and Inspection has been with BRC since 1996. Ms. Hanson's job responsibilities include coordinating meetings with both central and field x-ray inspection staff, reviewing all non-ionizing and laser x-ray inspection reports for completeness, accuracy, and accordance with 25 TAC §289. Previously, she was the Industrial and Non-Ionizing Registration Program Manager for five years. She also worked as a Technical Reviewer in the Registration Department for the Medical, Industrial and Non-Ionizing Program. You can contact Ms. Hanson at (512) 834-6688 extension 2035 or by email: [Latischa.Hanson@tdh.state.tx.us](mailto:Latischa.Hanson@tdh.state.tx.us).



Rae Kraatz joined the Division of Compliance and Inspection's Radiological Emergency Preparedness Program as an Environmental Specialist III. Ms. Kraatz is responsible for conducting radiation safety training for first responders. She also calibrates and distributes radiological detection instruments for Emergency Management organizations throughout the state. She is a graduate of Texas State Technical College in Waco specializing in Environmental Compliance and Health Physics. She worked previously as an environmental health and safety emergency operations center dispatcher and supervisor for Formosa Plastics in Comfort, Texas. You can reach Ms. Kraatz by phone (512) 834-6688 extension 2072 or by email: [Rae.Kraatz@tdh.state.tx.us](mailto:Rae.Kraatz@tdh.state.tx.us).

Elva Ramirez recently joined the BRC's Bureau Office Administrative Staff. She's currently the Administrative Assistant III to Bureau Chief, Richard Ratliff. Ms. Ramirez is responsible for answering calls, routing messages, and assisting with Texas Radia-



**Continued on page 5**

# - - - On the Move



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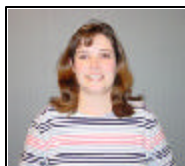
tion Advisory Board (TRAB) meeting preparations. Additional duties require her to address and process administrative staff inquiries. Ms. Ramirez has been with BRC since 1996. Prior to her current position, she served as Administrative Assistant II to the Deputy Director of Standards. You can contact Ms. Ramirez at (512) 834-6688 extension 2063 or by email: [Elva.Ramirez@tdh.state.tx.us](mailto:Elva.Ramirez@tdh.state.tx.us)



Gary Sanders, RAM Inspector for the Division of Compliance and Inspection, Public

Health Region 3 - Arlington, has also been promoted from an Environmental Specialist IV to an Environmental Specialist V. Mr. Sanders has worked as a RAM Inspector since 2001, and performs inspections of radioactive materials licensees. In addition, he performs incident and complaint investigations, and conducts presentations to various interested groups throughout the state. Prior to his work with the BRC, he worked for a health care provider in the Dallas/Fort Worth metro-plex. You may contact Mr. Sanders by phone (817) 264-4732 or by email: [Gary.Sanders@tdh.state.tx.us](mailto:Gary.Sanders@tdh.state.tx.us).

Sheri Schoppe new to BRC is the Administrative Assistant II to the Deputy Director of Standards within the Division of Licensing, Registration and Standards. Ms. Schoppe's position requires her to assist with general office duties, prepare rule

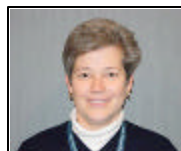


packet forms, mail drafts and proposed rule notifications, maintain the

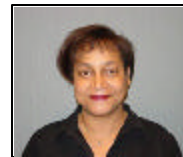


Interested Person database and format final revised rules for upload to the BRC website. In addition, she assists the Industrial Radiography Certification Program with faxing and mailing notifications to registered radiographers regarding exam schedules and test scores preceding the test. Ms. Schoppe comes to BRC from the Texas Department of Criminal Justice with over seven years of administrative experience. You may contact Ms. Schoppe by phone (512) 834-6688 extension 2238 or by email: [Sheri.Schoppe@tdh.state.tx.us](mailto:Sheri.Schoppe@tdh.state.tx.us).

Karen Verser, Environmental Specialist V in the Division of Compliance and In-



spection, is the Emergency Planner and liaison to the South Texas Project Nuclear Plant near Bay City. Ms. Verser is responsible for the development and coordination of state response resources in the event of an onsite accident resulting in a radiation release or airborne contamination. Ms. Verser has been with BRC since 2003. Prior to her current position, she was an Environmental Specialist III for the Radiological Emergency Preparedness Program. You can contact Ms. Verser at (512) 834-6688 extension 2002 or by email: [Karen.Verser@tdh.state.tx.us](mailto:Karen.Verser@tdh.state.tx.us).



Helen Watkins, Manager of the Escalated Enforcement Program with the

Division of Compliance and Inspection, has been with BRC since 1990. Ms. Watkins' job responsibilities require her to provide technical supervision of Program members and coordinate the efforts of Bureau staff who participate in escalated enforcement actions. Her duties include technical review of cases referred for escalated enforcement for all uses of radioactive material, x-ray users, and non-ionizing users. Her duties also include preparation of referred cases for BRC administrative actions or legal actions. BRC cases include reports for administrative penalties. Previously, Ms. Watkins was an Investigator with the Incident Investigation Program. You can contact Ms. Watkins at (512) 834-6688 extension 2006 or by email: [Helen.Watkins@tdh.state.tx.us](mailto:Helen.Watkins@tdh.state.tx.us).

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# Regulating New Technology: The CyberKnife



*The CyberKnife by Accuray Inc., is an image-guided frameless stereotactic radiosurgery delivery system.*

*By Julie Davis*

The BRC is continually researching ways to regulate new devices as advancing equipment technologies continue to emerge in the medical field. Currently, new regulations and certifications are being developed for the CyberKnife, a relatively new form of radiosurgery.

The CyberKnife is a painless, non-invasive therapy that uses a robotic arm to deliver highly focused beams of radiation to destroy tumors or lesions within the body. The flexibility of the robotic arm makes it possible to

treat the spine and spinal cord that cannot be treated by other radiosurgery techniques.

The CyberKnife, which is being used in facilities throughout Texas, and other emerging technically advanced medical equipment using forms of radiation, continue to be a focus for BRC because proper regulation and certification ensures the health and safety of the general public, health care workers and the environment.

*Photograph courtesy of the Department of Neurological Surgery at the University of Pittsburgh Medical Center.*

## M.D. Anderson to Build Proton Therapy Facility

The University of Texas M.D. Anderson Cancer Center has broken ground for a proton therapy facility near their current cancer treatment facility in Houston. The facility will be the first of its kind in Texas and only one of four in the United States.

The facility will be used to treat certain cancers with more precision and less trauma to surrounding tissue than the current photon and electron accelerators. It will consist of four large proton accelerators, three of a gantry design and one horizontal beam unit, which will be installed by Hitachi of Japan. Each gantry will be

the equivalent of a three-story building in height. The installation should be complete by sometime in 2005 and proton treatments are planned to begin in early 2006.

Representatives from M.D. Anderson met with BRC staff recently to discuss registration and regulatory requirements. Once the facility design is complete and shielding for the units is computed, registration staff will meet with physicists from M.D. Anderson to discuss their methodology. This effort will require coordination and additional research, since the facility is the first of its kind in the state.

CAREER  
OPPORTUNITIES

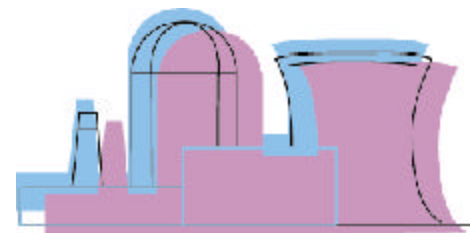


See the most current  
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BRC website:

[www.tdh.state.tx.us  
/radiation/brcjobs.htm](http://www.tdh.state.tx.us/radiation/brcjobs.htm)

# EMERGENCY PLANNING AND PREPAREDNESS AT NUCLEAR PLANTS



*By Karen Verser*

Following the accident at the Three Mile Island nuclear power plant in 1979, the Nuclear Regulatory Commission (NRC) reexamined the role of Emergency Planning (EP) for protecting the public in the vicinity of nuclear power plants. The accident pointed out the need for improved planning, response and communication capabilities by federal, state, and local governments to deal with possible reactor accidents. The NRC now requires that emergency plans include preparations for evacuation or other actions to protect residents in the area of nuclear plants in the event of a serious incident. The events of September 11, 2001, prompted an increased focus on emergency planning and further review of the issues involved. The NRC's main federal partner in EP is the Federal Emergency Management Agency (FEMA), now part of the Department of Homeland Defense.

Nuclear plant owners, government agencies, state and local officials, as well as thousands of first responders, have worked together for more than 20 years to create a system of emergency preparedness and response that will protect the public well in the unlikely event of an emergency. Since commercial nuclear power plants began operating in the U.S., there have been no fatalities due to exposure to

radiation from the plants. Even the country's worst nuclear power plant accident at Three Mile Island resulted in no health impacts.

In the U.S., 104 commercial nuclear power reactors operate at 65 sites in 31 states. Texas has four reactors, two at South Texas Project (STP) and two at Comanche Peak. They each have onsite and offsite emergency plans. The overall objective of emergency plans is to provide dose saving (and in some cases immediate life saving) for a variety of accidents that could produce offsite doses in excess of allowable limits. The NRC and FEMA share federal oversight of emergency planning. FEMA takes the lead in initially reviewing and assessing offsite planning and response and in assisting state and local governments, while NRC reviews and assesses the onsite planning and response. FEMA's reviews include evaluation of state and local participants in offsite exercises at each nuclear power plant. These reviews include regular drills and exercises. Each plant is required to exercise its emergency plan with the NRC, FEMA and offsite authorities at least once every two years to make sure state and local officials remain proficient in implementing the plan.

For planning purposes, the NRC defines two emergency planning zones (EPZ) around each nuclear

plant. The plume exposure pathway EPZ, where the primary concern is exposure to airborne radioactive contamination, extends 10 miles in radius around the plant. The ingestion pathway EPZ, where the primary concern is radioactive contamination of food and water, is 50 miles in radius.

Emergency plans are in place for each nuclear plant, and are designed to minimize potential exposure to releases of radioactive materials during an accident. For the 10-mile EPZ, these actions include sheltering and/or evacuation. Protective actions for the 50-mile EPZ include stopping the distribution of contaminated food and water, relocating livestock, and controlling access to the area.

To protect the public from exposure to airborne contamination, either evacuation or sheltering is considered. Factors that affect this decision can include the weather and how quickly an incident develops or how short-lived a release of radiation is. People may be told to take shelter in their homes, schools, or office buildings. When the decision to evacuate is made, residents in the downwind direction are advised to evacuate.

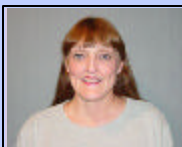
On June 22, 2004, the Bureau of Radiation Control will participate in a dress rehearsal for an Ingestion Pathway exercise. The exercise will take place at STP on August 10-11.

# BRC Personnel On the Move

Continued from page 5



Hans Weger, new to BRC, is an Environmental Specialist IV for the Medical Licensing Program within the Division of Licensing, Registration and Standards. Mr. Weger is responsible for evaluating licensing requests for the medical use of radioactive material, reviewing the proposed equipment, facilities, procedures and personnel. His job duties require him to check for adequacy in order to minimize danger to public health, safety and the environment. Preceding his current position, he worked five and a half years at Florida International University on applied research. To contact Mr. Weger by phone (512) 834-6688 extension 2211 or by email: [Hans.Weger@tdh.state.tx.us](mailto:Hans.Weger@tdh.state.tx.us).



Joyce Wilson joined the Division of Licensing, Registration and Standards as an Administrative Technician II in the Industrial Licensing Program. Ms. Wilson's position requires her to

review licenses, generate trainee status cards, qualify training of licensed radiographers, submit reports to the Texas Register and log in new actions. She will also be cross-trained on administrative activities in the Medical and Academic Health Licensing Program. Ms. Wilson comes to BRC from the Marbridge Foundation in Manchaca, Texas. You can contact Ms. Wilson by phone (512) 834-6688 extension 2861 or by email: [Joyce.Wilson@tdh.state.tx.us](mailto:Joyce.Wilson@tdh.state.tx.us).



David Wood returned to state employment after two months in retirement. He joined the Division of Licensing, Registration and Standards as Chief of Waste and Academic Licensing, a newly created position within the Radioactive Material Licensing Program. His job responsibilities involve planning, developing, and serving as project leader for licensing activities of low-level radioactive waste (LLRW) processing and/or storage, including financial qualifications, and financial assurance plans. He is also required to coordinate special BRC environmen-

tal projects in the areas of health physics (radiological health) as needed. Mr. Wood has been with BRC since 1990. Prior to his current position, Mr. Wood served two years as a field Health Physics Coordinator in the Division of Compliance and Inspection, and over 11 years as a License Reviewer in Medical and Academic Licensing Program. To contact Mr. Wood, call (512) 834-6688 extension 2208 or by email: [David.Wood@tdh.state.tx.us](mailto:David.Wood@tdh.state.tx.us)

## EMPLOYMENT UPDATE

Since April 2nd BRC has hired three new employees and promoted three current employees to vacant positions.

Additional employee changes will be featured in the next issue.

For the latest job postings  
Check our website:  
[www.tdh.state.tx.us/  
radiation/brcjobs.htm](http://www.tdh.state.tx.us/radiation/brcjobs.htm)

## STATE HOLIDAYS

The BRC will be closed in observance of the following holidays:

**May 31, 2004**, Memorial Day  
**August 27, 2004**, LBJ's Birthday

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