Three patients diagnosed with cancer in their eyes agreed to extended exposure from a laser pointer to evaluate the effect of the laser light. After a thorough exam of the eye and multiday follow-ups, the cancerous eyes were removed and underwent further examination. There was no evidence of injury from the laser pointers.

In the December 2000 issue of the Archives of Ophthalmology, Dennis M. Robertson, et al., of the Mayo Clinic published a study involving two patients diagnosed with a melanoma on the iris and a third patient who was diagnosed with a melanoma on the optic nerve.

All agreed to treatment that required the eye be removed (enucleated). The three also volunteered to be exposed to a different red diode pointer each with a wavelength measured at about 670 nm and output of between about 1 and 5 mW. The lasers were fixed at a distance of 15 cm from the retina and set so the exact location on the retina could be set and confirmed. Exposure was made at three locations in the eye with times of the exposure at 1 minute, 5 minutes, and 15 minutes. The pupils were dilated, and the patients were allowed to blink normally. Interviews and examinations were done immediately afterward and up to 15 days after exposure. After enucleation, the tissue was stained and microscopically examined.

After images and “pink” vision was reported but resolved within minutes. Histological examination of the tissue confirmed the diagnosis of melanoma but did not indicate any damage that could be ascribed to the laser.

We in the laser community continue to caution against shining a class 3a laser-pointer into someone’s eyes, but there seems no chance that such an incident will cause direct injury. Lasers can still serve to be a distraction and potentially dangerous if the victim is driving an automobile and, in worst case, reacts and loses control of the vehicle. More powerful lasers, class 3b and 4 lasers, will cause eye damage. More information on laser pointers and other lasers may be found at: www.sciam.com/askexpert/medicine/medicine38/medicine38.html

—Douglas A. Johnson

O

n March 7, 2001, I had the opportunity to visit Bartlett High School in Bartlett, Texas, and speak at their annual career day. A request from Bob Underwood, at Bartlett High School, was given to Pete Myers at the Bureau or Radiation Control to ask if someone would visit their high school and speak about the radiation industry.

Bartlett is a small farming community located approximately 12 miles northeast of Georgetown. There were approximately 25 students in attendance, and five of them asked for more information about the education one must receive to be able to work in the radiation field. After the presentation, I received the best question I have ever received from any student in the high schools that I have visited. When told about the radiation industry, the sources of energy, and the impending problems with the energy demand in America, a young girl asked, “Well, what are we going to do?” I deduced from this question that when people are made aware of their surroundings, and the information is presented in a matter-of-fact manner, people not only want to learn more, but also want to help. This has been an opportunity I enjoyed, and I would encourage others to do the same. If we, as health physicists, really want to make a difference, then we should endeavor to educate all people from all walks of life and all cultural backgrounds when given the opportunity to do so. ◆
Appreciation for STC Affiliates

On behalf of the officers and members of the South Texas Chapter (STC) of the Health Physics Society, I wish to extend my sincere appreciation for the STC affiliates who participated at our Winter Meeting in San Antonio, Texas. I believe it was another successful meeting because of their contribution and involvement. We rely greatly on our affiliates efforts, and I want to extend our gratitude to all STC affiliate members, current and past, who have fostered a long and mutually beneficial relationship with the STC.

I would like to recognize the following affiliates who contributed to the success of the San Antonio meeting:

- Apte-NRC
- Canberra Industries
- Inovision Radiation Measurements
- Iso-Tex Diagnostics
- Ludlum Measurements
- Owens Scientific
- Perkin Elmer Instruments
- Phoenix Scientific
- Perma-Fix Environmental Services
- Saint-Gobain Crystals & Detectors
- Suntrace Services
- Teledyne Brown Engineering
- Thermo Eberline Instruments
- Thermo MeasureTech (formerly TN Technologies)
- Waste Control Specialists
- William B. Johnson

I would also like to specifically recognize Perkin Elmer Instruments-ORTEC, Iso-Tex Diagnostics, Suntrac Services, and Thermo MeasureTech for making a special contribution to help defray the cost of refreshment breaks at the San Antonio meeting.

The STC appreciates you and hopes that our relationship will continue to grow in the years to come.

Sincerely,
Susan Jablonski, President-Elect
South Texas Chapter of the Health Physics Society, Inc.

Admissions Committee Report

Jim R. Sharp, Chairman

The final paid membership for 2000 is 279.
A total of 298 dues renewal notices were printed and mailed in January 2001

New members

Doug Brown IHI Southwest Technologies, San Antonio
Alex Redd Student, TAMU, College Station
David L. Tucker Student, TSTC, Waco
Margaret McCommas Student, TSTC, Waco

New members who belong to the National HPS

Robert R. Myers, Jr. Methodist Hospital, Houston
Andrew L. Scott U.S. Army, Ft. Sam Houston
Edward J. Semones Lockheed Martin, Houston

The 2001 Chapter directory will be available for distribution at the May 2001 meeting.
The pilot mentoring program that was carried out recently at the STC-HPS Affiliates Winter Meeting was a resounding success. The program had eight student participants, each paired with an experienced STC member. During the meeting, mentors were responsible for sharing knowledge and introducing students to other chapter members and vendors. Afterwards, questionnaires were distributed to both the students and mentors to get input about the pilot program.

The questionnaires conveyed very positive comments from students and mentors. The students remarked that they met new people, understood conversations better, and got good information on employment possibilities. Even though the students enjoyed the experience, they did indicate that they wanted even more information and more interaction. This is a clear indication that our student members are interested in the subject of health physics and are eager to get information. The participating STC mentors indicated that they enjoyed the personal encounter with students. Some mentors said that a program like this would have been helpful when they first came to STC meetings, and all agreed that it facilitated the students’ ability to meet new people and network.

The STC-HPS strives to welcome students and new members into this unique, tight-knit organization. Initially, we were unsure if students would be interested in participating in a pilot, since many already knew chapter members and had been to meetings in the past. However, the feedback gathered from this pilot program indicated that it helped reinforce that welcoming spirit, since it was even more successful than originally anticipated.

If a program similar to this STC pilot program is to be implemented on a larger scale at HPS national meetings, there will be many students and first-time attendees who could take advantage of the program. With early registration deadlines for HPS meetings, there will be more time to pair people up with similar interests and even have initial contact made before the meeting. This will help students and first-time attendees feel more welcome to the larger HPS organization. These people will be integrated into the HPS family sooner and also have a better chance of becoming, or continuing to be, an active member of HPS.

If a program similar to this STC pilot program is to be implemented on a larger scale at HPS national meetings, there will be many students and first-time attendees who could take advantage of the program. With early registration deadlines for HPS meetings, there will be more time to pair people up with similar interests and even have initial contact made before the meeting. This will help students and first-time attendees feel more welcome to the larger HPS organization. These people will be integrated into the HPS family sooner and also have a better chance of becoming, or continuing to be, an active member of HPS.

This is a reminder to students to apply for the STC-HPS Education Grant for 2001-2002.

The deadline is MAY 21, 2001. An application form can be found on the South Texas Chapter web site, under the page - “Student Assistance.”

http://www.stc-hps.org/student.htm

For further information or assistance, contact Linda K. Morris at her e-mail address, lmorris@walib.tstc.edu
I. Persons in attendance:
   A. Executive Council Members in Attendance: Susan Jablonski, President-Elect; David Fogle, Past-President; Mike Charlton, Treasurer; Pete Myers, Secretary; Jim Lewis, Executive Council Member; John Salsman, Executive Council Member; and Chris Maxwell, Executive Council Member.
   B. Chapter Members and Guests in Attendance: George Anastas, HPS President-Elect; John Hageman, Chairperson, Publications Committee; Ralph Heyer, Chairperson, Affiliates Committee; Janet McCravy, Chairperson, Nominating Committee; Linda Morris, Chairperson, Student Assistance Committee; Karen Myers, Chairperson, Public Relations Committee; Jim Sharp, Chairperson, Admissions Committee; Bob Wilson, Chairperson, Legislative Committee; Albert Evans; Ken Krieger; Stacy Krieger; and Pam Thomas.

II. Call to Order—Susan Jablonski—A quorum having been established, the meeting of the Executive Council (EC) of the South Texas Chapter of Health Physics Society, Inc. (STC), was called to order at 6:36 pm by Ms. Jablonski, President-Elect, presiding (in accordance with Article V, Section 13, of the STC Bylaws as revised August 17, 1998).

III. Approval of Minutes of EC Meeting on November 11, 2000—Susan Jablonski. President-Elect Jablonski asked the EC if there were any changes to be made to the minutes of the meeting held November 11, 2000. No changes to the minutes were recommended. A motion to accept the minutes as written was made by Mr. Fogle; the motion was seconded by Mr. Lewis, Executive Council Member. There being no discussion, Ms. Jablonski called for a vote on the motion, and the motion was passed unanimously.

IV. Approval of the Agenda—Susan Jablonski. After welcoming President-Elect Anastas:
   A. A motion was made by Mr. Salsman to move the Student Assistance Report to be provided after the Secretary’s Report; the motion was seconded by Mr. Fogle and passed by unanimous voice vote of the EC.
   B. A motion was made by Mr. Maxwell to adjourn at 9:30 pm; the motion was seconded by Mr. Myers and passed by unanimous voice vote of the EC.
   C. A motion was made by Mr. Myers to approve the agenda as amended; the motion was seconded by Mr. Maxwell. There being no discussion, Ms. Jablonski called for a vote on the motion, and the motion was passed unanimously.
   D. Later in the evening, Mr. Fogle made a motion to amend the agenda to include a report from the Science Teacher Workshop Committee after the report from the Student Assistance Committee (correcting an oversight during the preparation of the agenda). The motion was seconded and passed unanimously by voice vote.

V. President’s Report—Susan Jablonski:
   A. Science Teacher Workshop (STW)-Workshop at the Canadian Radiation Protection Association meeting in Nova Scotia. President Hamilton is attempting to work out funding from the HPS Public Education Committee to allow the STC team to present its STW at the CRPA meeting in Nova Scotia.
   B. President Hamilton has been contacted by a person who attended the STC STW at CAST 2000 in Lubbock who is interested in having STC conduct an STW in Beaumont. This request will be transferred to STC’s STW Committee for action.
   C. Mr. John White has contacted President Hamilton with a suggestion that STC urge the Texas Department of Health’s Division of Professional Licensing and Certification to become more involved in addressing the issue of providing State agencies (e.g., TDH) with budgets sufficient to allow agency employees to maintain their professional competency. Some legislative committees, especially Representative Chisum’s, are aware of this issue, and there may be some momentum building to fix the problem.
   D. President Hamilton is working to include another STC STW in the program being developed for the Cleveland meeting: HPS Board Member Ms. Carmine Plott is very supportive of the idea. STC members interested in providing presentations as part of the STC STW in Cleveland should contact President-Elect Jablonski. Mr. Krieger commented that the HPS Public Education Committee (PEC) has a special Science Teacher Workshop subcommittee and that President Hamilton and Mr. Krieger, who are both members of the PEC, are attempting to get HPS to give credit to STC for donating the STC STW materials for adoption by HPS. Mr. Fogle commented that STC would certainly appreciate any credit directed its way, but what is really required is for HPS to begin providing resources to support the STW program. Mr. Krieger answered by saying that the PEC is attempting to resource, at least, the STC STW being planned for the Cleveland meeting. President-Elect Jablonski interjected that HPS and STC need to begin coordinating; she asked Mr. Krieger to have the Chairperson of the PEC, who happens to be President Hamilton, get back with her on this. HPS President-Elect Anastas indicated that the 2001-2002 HPS will be his budget and that Science Teacher Workshops are very important to HPS. The call for estimates of expenditures will go out very shortly and that we should put a package together and run it by Ms. Carmine Plott and our Director Liaison (Ms. Janet Johnson) before the Anaheim Mid-year meeting.
   E. National HPS is nominating Dr. John Poston, Sr. for the position of Assistant Secretary of Environment, Health, and Safety at the DOE. President Hamilton will be writing a letter for STC to support that nomination.
VI. Treasurer’s Report—Mike Charlton

A. Revised Treasurer’s Report from November 10, 2000. Petty cash was added and a few dates changed. A motion was made by Mr. Myers to accept the report; the motion was seconded by Mr. Fogle. The motion was passed unanimously.

B. Summary for Finances for FY 2000. Net increase of 14.7% ($12,000).

1) Dues: $2700 (Membership); $4500 (Affiliates)
2) Scholarship Donations around $1000
3) Teacher Workshop Donations $610 (Mr. Fogle donated $400)
4) Lapel Pins pretty close to even ($517 remaining deficit)
5) Modest deficits for Science Teacher Workshops (~$500 deficit)
6) Five excellent technical meetings—did well with regulatory conference especially considering $1000 donated by the Affiliates to cover both breaks
7) Educational Grants—3 for $750 each; earned interest $1700 and had $900 (Mr. Fogle donated $500) in donations, so STC made some money this year.
8) 10% Membership increase (UTHSC-H’s RSO/Student Membership contributed)
9) Assets on 12/31/00
   a) $39,955.45 Operating funds, non-interest bearing [maybe move $20,000 to an interest bearing account (the use for which will be proposed by the ad hoc financial plan review committee].
   b) $58,642.39 Scholarship fund.
   c) $ 130.00 Petty cash.
   d) $98,727.84 Total assets.

Mr. Myers moved to accept the Treasurer’s report; the motion was seconded and approved.

The following expenditure-reimbursements were approved by voice vote of the EC.
- Susan Jablonski—$400.00 Trolley
- Susan Jablonski—$303.95 Door Prizes
- Susan Jablonski—$ 32.99 Meeting/Office supplies;
- Susan Jablonski—$ 67.76 Annette Glass attendance at the STW Sweetwater, Tx
- Janet McCrary—$ 21.00 Award Frames

VII. Secretary’s Report—Pete Myers. Science Engineer Fair of Houston requesting our financial support. Mr. Myers will coordinate STC’s response with Ms. Morris.

VIII. HPS National Status—George Anastas

A. Joel Cehn (pronounced “cane”) with the Northern California Chapter HPS has Wilson Cloud Chambers which cost $0.75. Might consider for STWs.

B. Proposal to the state for funding for environmental education is wonderful; when we get more progress, might write up for Chapter newsletter (and for HPS Newsletter).

C. Next HPS budget is his budget, talk to our Director to lobby for our activities [e.g., $500-$1000 for STW overseas (Australia, Mexico, Canada)]; submit to HPS now to get the Board of Directors thinking about the concept.

D. Encourage you to say thank you to your affiliates frequently and do things for them.

E. Major emphasis by national in Medical Health Physics (MHP); Tampa meeting plenary session dedicated to MHP. Dick Vetter has been named to a medical advisory committee for the NRC.

F. Changing format of Chapter Council meeting—now will solicit agenda topics from chapters; and other chapters will present the topics.

G. Radiation Safety without Borders. Hypothetically, the three Texas Chapters could adopt the radiation safety infrastructure in Mexico by identifying experts in each of the chapters to deal with generic situations who could be contacted by their counterparts in Mexico, perhaps facilitated by setting up e-mail access. Have spoken with the HPS Board of Directors, State Department, DOE, IAEA. Fifty countries have been identified by IAEA as potential beneficiaries of the program. Marries well with the outreach program with STW-perhaps, send experts with HPS PEP courses to beneficiary countries. Have verbal agreement from a number of chapters; expecting written agreement from Northern California Chapter speaking for California. IAEA very interested. North Texas Chapter seems very interested in teaming with STC. Other pairings include: North Carolina-East Tennessee; New England-Connecticut; Baltimore-Washington (stand-alone); four California Chapters. Tentatively looking at five countries supported by maybe ten to fifteen chapters. Mr. Hageman suggested holding a mid-year in San Antonio-would be an excellent venue at which to create international relationships with countries from South America and Central America. President-Elect Anastas supported the idea, indicating that South America and Central America are fertile ground for implementing the program. Terrorist-nation countries and non-signers of non-proliferations agreements would be ineligible. Chapters would not send money to countries; but would use National HPS funds to purchase services, equipment, training-supply supplies, e-mail connections to be transferred to the beneficiary country. President-Elect Anastas is excited with the prospect of being positioned to have HPS go before Congress to tell them what we’ve done in the way of providing international radiation safety training.

H. Major emphasis by HPS next year on members, chapters, and committees.

IX. Standing Committee Reports.

A. Admissions—Jim Sharp

(1) Margaret McCommas (TSTC student) was added to the list of new members bringing the total to four. Mr. Fogle made a motion to approve the membership of the four new applicants; following a second to the motion, the motion was passed unanimously by voice vote.

(2) There were also three applicants who receive automatic approval as Chapter members because of their membership-in-good-standing with the HPS.

(3) Mr. Myers brought to the attention of the EC that membership renewal forms were not mailed to members who had already

Continued on p. 6.
paid this years membership dues for honorary lifetime members. Mr. Myers recommended that forms be sent to those persons to allow them the opportunity to donate to either the Science Teacher Workshop Fund or to the Scholarship Fund and to allow them the opportunity to volunteer on a committee. Ms. Myers suggested that the forms could be sent to those persons when we mail out this year’s election ballots. Mr. Myers will coordinate with Mr. Sharp for the development of a form to be included along with the ballot.

B. Program—Susan Jablonski
(1) The next meeting will be the Annual Meeting, which will be in College Station at the Memorial Student Center, May 5, 2001. At the meeting we will change Chapter Officers and Committee Chairs. Ms. Jablonski is interested in having volunteers to serve as a Committee Chair to contact her as soon as possible.
(2) The meeting following the Annual Meeting will be held in Austin or San Antonio on either August 3/4, 10/11, or 17/18, 2001, and the theme of the meeting will be non-ionizing radiation safety (e.g., lasers, laser regs, radar). Ms. Krieger volunteered to lead in organizing the meeting (e.g., arranging for speakers and attracting attendees).

C. Public Relations—Karen Myers
(1) Submitted two articles to The HPS Newsletter, one of which was Bob Emery’s article on RSO/student memberships; it appeared in the January 2001 issue. Waiting until we gain some experience with STC’s mentoring program to submit an article to the national newsletter.
(2) Submitted three articles to The Billet on the August 12, 2000, meeting held in Austin. These articles were published in the December 2000 issue. The most recent in the series of articles on STC’s Longest-standing. Continuously active members was on David Norman turned out very nicely and appeared on the front page.

(3) Coordinated with Robert Ludlum to post photos of previous meetings and a copy of the San Antonio meeting announcement to the STC web page. Also coordinated with the HPS web master to add a link on the STC web page to President-Elect Jablonski’s article on Dr. Margaret Maxey’s presentation at our August 12, 2000, meeting.

D. Nominations—Janet McCrary
(1) Four persons nominated to receive HPS Chapter Volunteer of the Year Awards: Mr. Fogle, Mr. Hageman, Mr. Ludlum, and Mr. Myers.
(3) Nominated to serve on the Texas Board of Licensed Medical Physicists in the Medical Health Physics position: Mr. Doug Johnson.
(4) Seven persons are being considered for nomination to HPS Committees: Mr. Jay Beckel (Public Education); Mr. Fogle (Science Teacher Workshop Ad Hoc); Mr. Hageman (Board of Directors); President Hamilton (Science Teacher Workshop Ad Hoc); Ruth McBurney (Rules or Strategic Planning); Dr. Poston, Sr. (Board of Directors); and Mary Van Baalen (Research Needs or Publications).

(5) Working on submitting nominations for Robely D. Evans Award (Dr. Poston, Sr.); and Fellow (Dr. Jack Krohmer).
(6) Working on nominating persons for STC positions: President-Elect; Treasurer-Elect; and Executive Council. Persons interested should contact Ms. McCrary. Ms. Jablonski opined that persons who have served on the STC Executive Council are best prepared for serving as President-Elect.

X. Appointed Committee Reports
A. Affiliate Membership—Ralph Heyer
(1) Passed out guidance on corporate ads in The Billet.
(2) Intend on continuing to cultivate the relationship with the Affiliates by contacting them more regularly throughout the year. Want to meet their needs.
(3) Expect 20 booths this year; 14 presentations.
(4) Some affiliates have mentioned that they would prefer to hold the meeting in February to avoid the end-of-year, end-of-quarter, end-of-month crunch time. Ms. Jablonski supported a return to scheduling the meeting during February.

B. Legislation—Bob Wilson
(1) A bill has been filed making the mis-use of lasers a criminal offense.
(2) Representative Pete Gallegos filed a bill to remove reference to Hudspeth County as being the host county for a Texas low-level radioactive waste disposal site.
(3) House Committees will not be announced until this week.
(4) Advised the EC of a few items out of the Federal Register [e.g., NRC published enforcement actions for the period; NRC is forming a uranium/thorium rulemaking and jurisdictional working group; NRC is requesting comments on consolidated guidance in 10 CFR 20 standards for protection against radiation (comments due by February 26, 2001); December 7, 2000, EPA published their final rule on national primary drinking water regulations for radionuclides; December 18, 2000, NRC’s final rule was published for certain generally licensed industrial devices containing byproduct material; NRC’s Regulatory Agenda; NRC published the effective date for allowing the use of any new dosimetry technology that requires processing as long as the processor is accredited by NVLAP; NRC’s Directors decision under 10 CFR 2.206 dealt with if NRC could revoke DOD licenses to use Depleted Uranium; January 18, 2001, implementation guidance for radionuclides]. Mr. Hageman asked that a similar synopsis of proposed rules listed on BRC’s website and/or items from the Texas Register be provided to the EC.
(5) Have drafted a letter to the HERC and the Senate Natural Resources Committee offering the STC as a valuable resource in addressing all issues related to radiation.

C. Publications—John Hageman
(1) Deadline for submission of articles for the next issue of The Billet is March 9, 2001.
(2) Next deadlines (most likely) June 8, 2001; September 14, 2001; December 7, 2001.

D. Student Assistance—Linda Morris
(1) Applications for grants have been distributed.
(2) Website now has section on student assistance. Mr. Ludlum has done a wonderful job in providing information about the different types of assistance available for students and providing an
application form. Ms. Morris e-mailed all students who have e-mail addresses to let them know the process for applying for student grants and when they should be submitted (May 21, 2001) to be in time for awarding at the August meeting, which is in time for the Fall 2001 semester. Applications need to be accompanied by two letters of recommendation, a statement of the applicant’s goals, and their transcripts. Chapter members who might like to volunteer to assist in the evaluation of the applications should contact Ms. Morris.

(3) Regional Science Fairs Leads:
   (a) Mr. Krieger—Houston
   (b) Mr. Hageman—San Antonio
   (c) President-Elect Jablonski—Austin
   (d) Mr. Salsman—College Station
   (e) Ms. Morris—Waco

Judges should be receiving information on their Fairs through the mail; next Fair is the Austin Fair in late February. Chapter members who might like to volunteer to assist in evaluating radiation related science fair projects should contact one of the persons listed above. The Fairs are usually two-day events. On the evening of the first day, you’ll walk through the Fair identifying radiation-related projects, and on the second day, you apply the Fair’s general judging guidelines in determining awards. At the request of the Houston Fair organizers, STC will not include a cash award but award a chart of the nuclides and an engraved plaque (less than $50 per Fair). Could also consider paying the student’s way to attend a STC meeting.

E. Science Teacher Workshop—David Fogle
   (1) Thanks to all the presenters and especially Mr. Ludlum for the work done in arranging and presenting the workshop in Sweetwater (12 attended).
   (2) Provided an update on the STC proposal to the Texas House of Representatives Committee on Environmental Regulation for $15,000 funding from the Texas Environmental Education Partnership to upgrade our Science Teacher Workshop materials. Provided a copy of a letter from Representative Warren Chisum that supported STC’s proposal.

(3) Next STW is scheduled for February 24, 2001, Hermann Memorial Hospital Southwest. Persons interested in participating should contact Mr. Fogle.

(4) Mr. Albert Evans interjected that on March 1-3, 2001, at Sam Houston University in Huntsville, the Texas Chapter of the American Physical Society and the American Association of Physics Teachers is having a sectional meeting. Mr. Evans believed that the sectional meeting might be an excellent forum to publicize STC’s STWs. Mr. Evans is still a member of APS and has drafted an abstract he would be willing to present at the meeting and is looking for the STC EC’s approval. Mr. Fogle indicated it was an item that would be discussed by the EC; Ms. Jablonski indicated that we would be willing to assist Mr. Evans in preparing a presentation.

XI. Old Business
   A. Financial Plan—Mike Charlton
   Requested an Ad Hoc committee be appointed to review the plan and present recommendations on the plan to the next meeting of the EC. Ms. Jablonski appointed herself, Mr. Charlton, President Hamilton, Mr. Krieger, and Mr. Lewis to the committee. The committee was asked to report at the next meeting of the EC.
   B. Letter to Time Magazine—Ken Krieger (for Ian Hamilton)
      (1) Time said they never received our letter so it was re-sent.
      (2) Copy of the letter should be provided to the Secretary.
   C. RSO Navigator-Ian Hamilton (for Bob Emery). With neither of the proponents in attendance, Ms. Jablonski requested that discussion of the item be deferred until the next meeting of the EC.
   D. Mentoring Program—Ken Krieger
      (1) Ten students have been paired with mentors.
      (2) Seems to be a success even at this point. Didn’t expect that many would have been interested out of such a relatively small group as the Chapter. Should be even more successful with a larger group, like HPS. Will coordinate with Ms. Myers, Chairperson, Public Relations Committee, to write an article for the HPS Newsletter.

(3) Mr. Myers recommended to change the name from mentor/protege as he believed the titles impart a connotation reserved for a much more special and long-lasting relationship. Ms. Jablonski recommended we consider other names for the article we submit to HPS.

E. Enhanced Texas Regulations—Jim Lewis. EC agreed to remove this item from the agenda as an idea not worth pursuing.


G. John Picket Application for Membership—Jim Sharp. Mr. Sharp indicated that Mr. Fogle would determine if Mr. Picket, NUMED, should be seeking Affiliate-membership status rather than membership as an individual. Mr. Fogle said that he would make this determination by the next meeting.

XII. New Business
   A. Mike Charlton requested the EC to approve transferring $20,000 from the operating fund to an interest-bearing account. Mr. Fogle made a motion to transfer $20,000 from the operating fund to a money market account. Jim Lewis seconded the motion. John Salsman recommended that we wait until the Ad Hoc Committee on the financial plan completes their review of the financial plan before we designate the money for the Science Teacher Workshop. Mr. Charlton countered by indicating that he believed that the educational grant fund is already fairly robust and that the STW needs some additional funds. Ms. Jablonski supported Mr. Charlton’s recommendation. Mr. Fogle withdrew his motion.

B. Mr. Charlton made a motion to transfer $20,000 from the operating fund to an interest-bearing money market account. Following a second, the motion was approved unanimously by voice vote.

XIII. Adjournment
   Having exhausted the agenda, Ms. Jablonski adjourned the meeting at 9:29 pm. ♦
**Energy Employees Occupational Illness Compensation Program News Releases**  
*Matt Arno*

On January 11, 2001, then-Secretary of Energy Bill Richardson announced the Clinton administration’s proposed changes to existing legislation that provides for compensating thousands of current and former workers in nuclear weapons-related activities, or their survivors. The proposal would amend the Energy Employees Occupational Illness Compensation Program Act of 2000, which was enacted in October 2000 as part of the National Defense Authorization Act. The Act provides for compensation of Energy Department workers, or their survivors, who have occupational illnesses from exposure to the unique hazards associated with building the nation’s nuclear defense.

Under the proposed amendments, a covered worker will be provided a choice of compensation remedies. The worker may elect to receive a lump sum payment of $150,000, as provided in the current law, or compensation for lost wages provided by the new legislation, which is the traditional remedy for workers’ compensation. Both the new legislation and current law provide for payment of medical expenses. The Department of Health and Human Services will develop guidelines for the Department of Labor to determine if a cancer is likely to be related to a worker’s occupational exposure to radiation, to establish methods to estimate worker exposure to radiation and develop estimates for those who have applied for compensation. A Presidential advisory board is being selected to provide oversight and assure confidence in the scientific validity and quality of this work.

Secretary Richardson also made public an initial list of facilities to be covered under the legislation, including beryllium vendors, Energy Department sites that used radioactive materials and facilities where atomic weapons workers may have been employed. Some of these facilities are no longer operating. The list names 317 sites in 37 states, Puerto Rico, the District of Columbia, and the Marshall Islands. The proposed legislation, the list of facilities, and information on the compensation program are available on the World Wide Web at www.eh.doe.gov/benefits.

On January 11, 2001, the Energy Department also released the results of a study of possible past radiation exposures to workers at the Paducah Gaseous Diffusion Plant in Paducah, Kentucky. The study is part of Secretary of Energy Bill Richardson’s worker health and safety initiative at the Paducah site. “This report identifies the type of work which, in the past, posed the greatest risk to Paducah workers,” said Secretary Richardson. “It will serve as a basis for further study to ensure that workers made sick at Paducah get the compensation they deserve.”

The study concluded that from 1952-1991 an estimated 2,500 to 4,000 employees worked in areas that increased their potential radiation exposure beyond that expected for workers elsewhere at the plant. The study helps to focus future health studies by identifying the job types, locations and time period that could have posed the highest risk. The study did not attempt to estimate doses for individual workers. While all types of possible radiation exposures were considered in the study, particular attention was given to potential exposures to transuranic elements—neptunium and plutonium. Current practices at the Paducah Gaseous Diffusion Plant keep worker exposures well below historic levels. The study results are available on the Internet at: www.doe.gov. 

---

**Use of Risk Information in the Nuclear Materials Regulatory Process**  
*Pete Myers*

The Nuclear Regulatory Commission is developing an approach for using risk information in the nuclear materials and waste regulatory process. As part of this effort, the NRC staff is conducting case studies on a spectrum of activities in the nuclear materials and waste arenas, including the regulation of gas chromatographs, fixed gauges, and static eliminators. These studies illustrate what has been done and what could be done in the materials and waste arenas to alter the regulatory approach in a risk-informed manner and establish a framework for using a risk-informed approach in the materials and waste arenas by testing a set of draft screening criteria and determining the feasibility of safety goals.

The NRC staff is in the initial phase of case studies on gas chromatographs, fixed gauges, and static eliminators. This effort (1) communicates to stakeholders the status of these case studies; (2) receives feedback and comments from stakeholders before continuing with the case studies; and (3) solicits from stakeholders comments or insights regarding the use of risk information in the NRC’s regulation of gas chromatographs, fixed gauges, and static eliminators.
FDA’s 21 CFR 179.45 Amended to Include Irradiation of Prepackaged Foods by X-radiation and Electron Beam Energy Sources

Pete Myers

The Food and Drug Administration (FDA) has amended the food additive regulations to expand the conditions of safe use of X-radiation and electron beam energy sources for the treatment of prepackaged foods by irradiation. This action is in response to a petition filed by the National Center for Food Safety and Technology. The rule was effective February 16, 2001; written objections and requests for hearing were to have been submitted by March 19, 2001.

In a notice published in the Federal Register of March 2, 2000 (65 FR 11320), FDA announced that a food additive petition (FAP OM4711) had been filed by the National Center for Food Safety and Technology, Illinois Institute of Technology, 6502 South Archer Rd., Summit-Argo, IL 60501-1933. The petition proposed to amend the food additive regulations in Sec. 179.45 [Packaging materials for use during the irradiation of prepackaged foods (21 CFR 179.45)] to expand the conditions of safe use of X-radiation and electron beam energy sources for the treatment of prepackaged foods by irradiation.

The FDA evaluated the data in the petition and other relevant material. Based on this information, the agency concluded that: (1) The proposed use of the additives as sources of radiation for irradiating of prepackaged foods is safe, (2) the additives will achieve their intended technical effect, and therefore, (3) the regulations in Sec. 179.45 should be amended as set forth below:

PART 179 — Irradiation in the Production, Processing and Handling of Food

2. Section 179.45 Packaging materials for use during the irradiation of prepackaged foods is amended in the introductory text of paragraph (b) by adding the phrase “, electron beam, or X-” after the word “gamma.”

The agency had previously considered the environmental effects of this rule as announced in the notice of filing for FAP OM4711. No new information or comments had been received that would affect the agency’s previous determination that there is no significant impact on the human environment and that an environmental impact statement is not required.

A New Certified Health Physicist (CHP) in Texas

John Hageman

Mary G. Van Baalen, of the University of Texas Medical Branch, Galveston, Texas, is now a Certified Health Physicist (CHP). Part of the qualification to be named a CHP is to successfully complete Parts I and II of the American Board of Health Physics (ABHP) Certification Examination. Mary had passed Part I, and this summer passed Part II. CONGRATULATIONS, MARY!

Passing these tests is a great milestone. Just consider, the results of the 2000 ABHP Certification Examination were as follows: 45 out of 145 candidates passed Part I, and 66 out of 98 candidates passed Part II. CONGRATULATIONS AGAIN, MARY!!!!


For more information about the American Academy of Health Physics Membership, visit: http://www.hpsl.org

This information is located at the American Academy of Health Physics Membership website, http://www.hpsl.org/aahp/members/members.htm.
STC SEEKS GOVERNMENT FUNDS

Health Physics Society, South Texas Chapter, January 16, 2001

Dave Fogle

A Proposal for Support Related to Environmental Education

is dealing with any exposure to radioactive material, radiation sources, or radiation-producing machines. They are individuals who provide and service radiation measuring instruments, radiation detection devices, sensitive laboratory equipment, and shielding from radiation. They work in hospitals and clinics, veterinary hospitals, medical research, colleges and universities.

commitment of the STC to it’s bylaws and founding principles of environmental education and support of learning, members of the STC decided to make certain that this very worthwhile program continues. The Science Teacher Workshops are completely funded by donations provided by STC members, affiliate members and supporting organizations. All Workshop

We provide them with radiation detection equipment, lesson plans for grade levels 4 through 12, videos and software . . .

instructors and coordinators are STC volunteers.

Our workshops are designed to teach scientifically based environmental education related to the interaction of man with radiation. Our day-long workshops emphasize balanced environmental education concerns stressing the importance of radiation safety and health (See copy of agenda from our last Workshop.). We teach facts and encourage decisions based on those facts. We do not promote ideology. Rather, we instruct science teachers on radiation principles and how those principles apply to their lives and their environment. We provide them with radiation detection equipment, lesson plans for grade levels 4 through 12, videos and software, and hope that when they return to the classroom, they will use their new skills and aids to expand the subject and depth of classroom environmental education.

Although our workshops have been successful, the costs related to conducting these activities continue to increase and financial strains cannot continue to be borne by the STC without substantial cut-backs. As pointed out during a recent Science Teacher Workshop, many of the demonstrations we use during the Workshops need to be revised, augmented and substantially improved/modified. Our supply of professionally printed classroom materials, displays, educational games, and booklets are virtually depleted. Our STC volunteers have picked up the slack where possible—asking for discounts from office supply stores, getting videos dubbed at local television stations, and compact disks burned and floppy disks copied at home or work at minimal cost. Although these efforts have helped, more is still needed to keep this program at the current level and beyond.

Our workshops improve the overall environmental education in Texas by providing a quality product to teachers at no cost to attendees or their schools. Using a day-long format, teachers receive a great amount of information,
materials, and education on the truths about the interaction of man and the environment with radiation that has always been in our daily lives. Teachers return to their classrooms and use the newly acquired materials and decision-based concepts pertaining to radiation during the instruction of their students. To our knowledge, the Health Physics Society is the only entity currently conducting free workshops and providing so much information related to radiation to teachers.

Besides the materials given to teachers, a great deal of effort is devoted to providing teachers with information on how to identify and use resources for environmental education. The STC provides teachers with a listing of unbiased, radiation fact-based Internet web sites that can be used to augment lesson plans provided by the STC related to teaching about radiation.

The STC also provides teachers with a listing and contact information for obtaining additional audio-video materials from the Texas Department of Health. Finally, teachers leave our Workshops with an expanded network of resources, including names, company/agency names, addresses, phone numbers, and e-mail addresses of Workshop instructors who may be contacted for more information on radiation and assistance on any matters related to teaching students about radiation. Teachers are also provided with continuing education hours for their time at the workshop.

We are also tying our Workshops into the STC efforts to promote radiation-based projects by students in Texas Regional Science Fairs. This year, the STC is sending a group of judges to three Regional Science Fairs to provide special awards for radiation-based projects. Additionally, we are extending the expertise of our STC volunteers to the teachers who attend our Workshops, and their students, in developing these radiation-based projects. Workshop instructors are available to make visits to schools to provide lectures and demonstrations about the interaction between radiation, man, and the environment.

In the past four years, the STC has conducted workshops in San Antonio, Houston, College Station, Lubbock, and presentations used in environmental education of Texas science teachers about radiation. If there exists a particular concern about radiation, the STC has incorporated materials and presentations to suit those concerns. For instance, during the workshop conducted in Bay City, a great deal of interest was expressed about the safe use of nuclear power. In response to that concern, a separate module related to nuclear power plant design, construction, operation, and decommissioning was developed and presented to those attending teachers.

We understand that you will give primary consideration to projects, activities, and programs that: A) promote balanced views based on sound science, B) include instruction on or exercises in critical thinking, and C) promote the protection of environmental resources. The STC strongly supports the same values and believes our Workshops promote all of these important goals of environmental education.

We have been conducting Science Teacher Workshops since 1994. Only through the resolution of the STC and several very dedicated members of that organization, Workshops have been regularly scheduled and conducted for just the past three years. From program inception, approximately 250 Texas science teachers have directly benefited from attendance at our Workshops. The number of students potentially benefiting from our Workshops through the instruction of their teachers exceeds 4000.

In 1995, the Workshop materials and lesson plans were presented to the Texas Education Agency for review. Based on that review, it was determined that our Workshops meet applicable standards for awarding continuing education credits commensurate with clock hours of classroom instruction. Since that time, the STC has mailed continuing education certificates to all teachers successfully completing the day-long workshop.

The STC has partnered with a great number of different entities, from affiliated members of the STC, state agencies, private industry, education service centers, and utilities. The STC has reached out to any entity or individual interested in supporting our environmental education initiative. Specific examples include: Ludlum Measurements, Inc.; Hermann Hospital System; University of Texas System, Education Service Center, Region II; Texas Natural Resource Conservation Commission; the U.S. Department of Energy; and Central Power and Light. All of these aforementioned entities provided various levels of support, from providing venue accommodations to providing direct financial support.

Perhaps the most expensive items necessary for such a successful product are the

The STC has partnered with a great number of different entities, . . . in supporting our environmental education initiative.
77th Texas Legislature in Session

Bob Wilson

The biennial meeting of the 77th Texas Legislative session began January 9, 2001. This session promises to bring about policy discussions focused on radioactive materials, particularly radioactive waste. When the last day of filing for this session rolled around (March 9), there were several proposed bills addressing Texas policies on radioactive materials and waste.

Senate Bill (SB) 1541 was the largest bill with the most changes to statute filed on low-level radioactive waste policy in Texas. SB 1541 was filed by Senator Robert Duncan, Vice-Chairman, Senate Natural Resource Committee, with a companion bill, House Bill (HB) 3420, filed in the House by Representative Warren Chisum, Chairman, House Environmental Regulation Committee. Chairman Chisum also filed HB 1099 and HB 3283 addressing Texas policies on radioactive materials and waste. Other bills that have major references to radioactive material and waste include HB 85, HB 2370, HB 2371, HB 2904, HB 2905, HB 3086, and SB 1338. There is also the “sunset bill” of the Texas Natural Resource Conservation Commission that generally refers to radioactive functions of the agency, HB 2912. All these bills can be accessed and tracked throughout the session by going to http://www.capitol.state.tx.us/capitol.htm and searching under the bill number.

STC Seeks

Continued from p. 11.

The STC Seeks

Continued from p. 11.

materials provided to each science teacher during the day-long Workshops. Although the cost of the materials are great, the STC is dedicated to ensuring that each teacher attending our Workshops will receive the following: radiation detection instrument, four note-books filled with lesson plans for grade levels 4 through 12 in specific subject areas, three different software programs, PowerPoint presentations of radiation instruction modules, two video presentations on radiation, books about radioactive waste, various radiation-related brochures from various stated and federal agencies, booklets provided by the American Nuclear Society, grade school level coloring book, and the previously mentioned environmental education resource listings. All materials are packaged for transport in a functional and colorful plastic crate that the teachers take with them.

To date, all materials have been purchased, or otherwise acquired, by the STC. Including the costs associated with transportation, Workshop instructor’s travel and instruction time, the cost to produce each Science Teacher Workshop is in excess of $4,400, based on an instructor staff of five individuals and an average Workshop attendance of 15 science teachers. Again, absolutely no costs are passed on the science teachers. In fact, the STC has on at least one occasion helped pay travel and per diem for some teachers to attend our Workshop and even given away a computer for a teacher’s use back in the classroom.

As indicated earlier, many of the demonstrations used during the Workshop need to be revised and expanded into new experiments that can be easily conducted by science teachers in the classroom. Professionally printed materials need to be purchased in volume to allow science teachers an opportunity to obtain hands-on experience conducting the demonstrations and experiments during the Workshop. Our goal is for attending teachers to become comfortable with the laboratory and knowledge related to the experiment in order to confidently reproduce it in the classroom. To do this, the STC must obtain additional funds for the purchase of necessary equipment and new printed materials that we could, in turn, give to science teachers along with the materials we already provide.

A specific example of needed equipment would be the purchase of experimental “cloud chambers” for each teacher to demonstrate distances traveled in air by various radiations.

The STC remains dedicated to providing a quality learning experience and educational product to the science teachers of Texas. However, there is a finite amount of funding from the STC that can be dedicated to this mission. At current cost levels, the STC can continue to finance approximately three Workshops a year with no improvements. As you can imagine, the demand from teachers and communities for this environmental education opportunity is growing, and the STC will simply not be able to finance the cost of this necessary program or the improvements that need to be made. Factoring this in, along with the definitive need for expansion and revision of some of the material, and realizing the base cost for producing just one Workshop, the STC will need approximately $15,000 to achieve a marked improvement in the Workshops and be able to match product with demand.

By collecting contributions toward these needed funds for upgrade and improvements, the STC will move closer to our goal of always having the ability to continue supplying a timely and effective environmental education program to those who request it. The most obvious benefit of this overall upgrade and support would be the improved environmental education that can be provided to the children of the State of Texas—in other words, our future.
A s of March 8, 2001, there had been 3295 House bills and 1470 Senate bills filed in our Texas legislature. These totals do not include resolutions of various types. The deadline for filing a bill and having it considered without a special vote is March 9. The expectation was that perhaps another 700 or so bills would be filed on that day. As of this writing, and although I may miss some, the bills dealing specifically with various radiation matters include the following:

* HB 85—Removes references to Hudspeth County from Section 402 of the Health and Safety Code, which deals with the Low Level Radioactive Waste Disposal Authority.
* HB 319—Makes pointing a laser pointer at a uniformed safety officer or peace officer a Class C misdemeanor.
* HB 1099—The radioactive materials regulation “cleanup” bill, designed to bring the Texas program into conformity with NRC requirements.
* HB 2370—Would prevent Low Level waste from being placed into a landfill below normal land surface elevation.
* HB 2371—Would prevent the Governor from appointing someone to be a Commissioner of the Low Level Waste Compact unless the person signed a pledge not to propose an agreement “. . . with any person, state, regional body, or group of states for the importation of low-level radioactive waste into the compact for management or disposal . . .”.

* HB 2904—This is mainly a siting bill for a low-level waste site. It would remove references to Hudspeth County, but would also create a preference for sites “. . . located at or near nuclear power plants.”
* HB 2905—“A bill relating to the management of low-level radioactive waste.” It would delete what is currently Chapter 402 of the Health and Safety Code (which is the Chapter dealing with what was the Low Level Radioactive Waste Disposal Authority) and create a new Chapter 404, which would be a “new” Low-Level Radioactive Waste Disposal Authority. The bill contains siting criteria, and prohibits below grade disposal of waste. It includes a legislative finding that “there is no technology of land burial proven to safely and effectively isolate all low-level radioactive waste during the hazardous lifetime of the waste.” I have included only a very short summary of the terms of this proposal.

* HB 3086—This bill would allow a local election for voter approval of a potential low-level radioactive waste site.
* HB 3283—This is Rep. Chisum’s bill relating to “disposal or assured isolation of low-level radioactive waste and to the transfer of certain land purchased for a disposal site.” It amends parts of both Chapter 401 and Chapter 402 of the Texas Health and Safety Code. (This bill was filed on March 8, 2001, and I have only been able to scan through it quickly.)
* SB 1338—This bill would authorize the Railroad Commission to require the owner or operator of oil and gas equipment to determine whether it is contaminated with oil and gas NORM waste and, if it is, notify the Commission.

There are also bills dealing with various matters that, while not directly affecting radioactive materials regulation, may prove of interest. For example, there are several bills dealing with the subject of telemedicine. There is a bill instructing “. . . state agencies and other state governmental entities to determine when to: (1) comply with a federal guideline; (2) submit to federal preemption; and (3) comply with a federal regulatory mandate.” I have not yet reviewed the required “sunset bill” to continue TNRCC’s existence, SB 318. (There should also be a House version filed.) I have not yet seen the appropriate bills, and its provisions may affect fees set for licensure.

I also need to research another Rep. Chisum bill, HB 3021. It would change the definition of “hazardous waste” to be “. . . a solid waste or combination of solid wastes that (A) because of its quantity, concentration, or physical, chemical or infectious characteristics may: (i) cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or (ii) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.”

There is a reference that to be listed as hazardous the waste must be so identified in rules that are not more stringent than is necessary to maintain state program authorization under the Resource Conservation and Recovery Act, so this change may be one that is mandated by some change in Federal law or regulations.

I did hear that there were a number of other bills dealing with various radioactive matters, primarily uranium operations, which were to be filed. Presumably those were filed today and will appear on our services over the weekend.

On March 9, another 329 or so House bills and 283 or so Senate bills were filed. (Some of the bills that were filed had numbers out of sequence, and had been reserved, but not filed, earlier in the process.) The total is now about 3624 House bills and 1754 Senate bills, again not counting the resolutions of various kinds that have also been filed.

There were some additional bills relating to radiation. I have only looked at bill captions for these, but the list includes:

* HB 8—“Relating to the regulation of radioactive materials and other sources of radiation,” filed by Rep. Walker, an “assured isolation” bill “relating to the regulation of radioactive materials and other sources of radiation.”
* HB 3420 (Same as SB 1541)—“Relating to the permanent management of low-level radioactive waste.”
* SB 1541—“Relating to the permanent management of low-level radioactive waste.”
Four STC Science Teacher Workshops Completed in One Year!

David Fogle, Past-President

Building on the accomplishments of last year, members of the South Texas Chapter of the Health Physics Society (STC) recently completed four Science Teacher Workshops (STW) in a little less than one year’s time. Having successfully accomplished an STW in Mercedes, Texas, in the spring and College Station, Texas, in the fall, the most recent accomplishments came at other points in Texas, in Sweetwater and Houston during the winter.

The most recent STW, hosted by Memorial Hermann Hospital Southwest, was conducted on Saturday, February 24, 2001. After a continental breakfast was served, the program began at approximately 8:30 a.m. with a brief introduction followed by an entertaining look at selected events in radiation history presented by STC Past-President David Fogle. Longtime STC member and all-around good guy, Prof. Frank Iddings then launched into the daunting task of explaining the fundamentals of radiation to a nontechnical audience. Following Frank’s presentation, Stacy Krieger provided a “scintillating” demonstration of thermoluminescence using common table salt that had been irradiated to 14 Mrads. Ken Krieger, CHP, then provided the always entertaining and thought-provoking discussion on daily exposures to radiation.

After lunch, STC Secretary Pete Myers continued the educational mission of the day by talking about the biological effects of radiation. Always a formidable task, Pete was able to make sense of all the jargon and physics and provide a meaningful presentation. Following the afternoon cookie break, STC President-Elect Susan Jablonski gave a thought-provoking discussion on radioactive waste management and how it affects all citizens of Texas. STC Past-President Fogle returned to give a brief summary and wrap-up of the day.

Previously, on December 9, 2000, several STC members, and one legislative aide, made the trip to Sweetwater, Texas, to present an STW to 11 science teachers at the Texas State Technical College campus. With a couple of important exceptions, the subjects presented and STC members providing the presentations were as already specified above. Special thanks must be rendered to Mr. Dru Carson of Ludlum Measurements, Inc. Dru was called in to provide the key presentation on fundamentals of radiation in virtually the eleventh hour. Mr. Carson responded in the affirmative and provided an excellent overview for the teachers.

Mr. Matt Arno, Texas A&M student, once again did a masterful job of providing fun and interesting demonstrations that can be reproduced affordably in the classroom environment.

All responses from the attendees of both workshops were extremely positive regarding the workshop environment, presentations, arrangements, and food. Of course, a debt of gratitude goes out to all the presenters and volunteers who have contributed their time to this important and beneficial effort. Special thanks goes out to Mr. Robert Ludlum for arranging the Sweetwater STW. Robert did a marvelous job of arranging for instructors’ lodging, workshop venue, scrumptious lunch, and arm-bending for teacher attendees. Likewise, Eva Legler continues to do a simply amazing job year in and year out providing venue, door prizes, and monetary support from the Memorial Hermann Hospital Southwest Auxiliary.

The success of these workshops are a direct result of the hard work and dedication of a lot of “behind the scenes” folks. Susan Jablonski continues to make improving revisions to the materials and slides used during the workshops based on comments by teacher-attendees and instructors. The STC is also indebted to Tarre Calloway, Sherry Cogburn, Kathy Martin, and Keith Smith of the Bureau of Radiation Control-Texas Department of Health for their continued support during the preparation and photocopying of materials provided to teacher-attendees.

Lastly, the success we are enjoying now and the chance to do the same in the future are largely due in part to your (chapter members) contributions to the STW fund. Without those funds, the program cannot continue at its current pace. 

Dru Carson demonstrates how survey meters work, using a piece of fiestaware with uranium glazing as a source.
# The STC Works With Government

**Letter dated: January 12, 2001**

From: Warren Chisum, Texas Congressman  
To: Manual L. Ibanez, Chair  
Project Review and Assessment Committee  
7737 Starnberg Lake  
Corpus Christi, TX 78413  

Dear Dr. Ibanez,  

I would greatly appreciate your committee’s consideration of the enclosed letter of application for participating partner status from the South Texas Chapter of the Health Physics Society. I have encouraged them to send their application this month so that you will have time to review it and, if approved, place them on the Fund Board’s March 16 agenda for full Board consideration.  

As you will read in their application, the Health Physics Society has an excellent program to train science teachers on issues related to the interaction of man with radiation. As Chair of the Texas House Committee on Environmental Regulation, I can attest to the fact that this is a serious issue in Texas, and our most difficult battles are fought over public misperceptions rather than facts. An accurate understanding of radiation along with its benefits and consequences will allow the next generation to make wise decisions about its use.  

I appreciate your serious and timely consideration to this proposal.  

Thank you,  
Warren Chisum

**Letter dated: January 16, 2001**

From: David B. Fogle, Past-President  
Chair, Science Teacher Workshop Committee  
South Texas Chapter of Health Physics Society, Inc.  
To: Manual L. Ibanez, Chair  
Project Review and Assessment Committee  
7737 Starnberg Lake  
Corpus Christi, TX 78413  

Dear Dr. Ibanez,  

On behalf of the membership and Executive Council of the South Texas Chapter of Health Physics Society, Inc. (STC), I would like to thank you for taking the time to consider our request for support. In summary, let me highlight our request for support and related benefits to the State of Texas.  

In accordance with our Charter and Bylaws, and our not-for-profit IRS 501-C-3 status, the STC conducts environmental education, Science Teacher Workshops, throughout the year. The workshops are designed to provide high school science teachers with unbiased, fact-based knowledge, lesson plans, activities, projects, materials, software, videotape, and a radiation detection device; all of which can be taken back to the classroom and used to educate their students. To date, approximately 250 Texas science teachers have directly benefited from attendance at our Workshops. The number of students potentially benefiting from our Workshops through the instruction of our material by their teachers exceed 4000.  

Obviously, the STC is committed to and wants to continue to provide this very valuable resource for environmental education to the teachers of Texas. However, the STC does not have sufficient funds to maintain such an ambitious program and make vital teacher-suggested improvements. That is the reason why we have approached your committee with our proposal.  

We appreciate the fact that you are very busy and have a pressing schedule. Thank you for taking time to consider our proposal. If any questions are generated during the deliberations concerning our proposal, please contact me at (512) 834-6688, extension 2203. Again, thanks for your consideration of our proposal.  

Very truly yours,  
David B. Fogle

## Future Meetings

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 4 &amp; 5, 2001</td>
<td>College Station, TX (TAMU)</td>
<td>Annual Business Meeting &amp; Student Papers</td>
</tr>
<tr>
<td>August 3 &amp; 4, or 10 &amp; 11, or 17 &amp; 18</td>
<td>Austin, TX (tentative)</td>
<td>Regulatory Issues of Non-ionizing Radiation, Lasers and such</td>
</tr>
<tr>
<td>November 9 &amp; 10</td>
<td>Moody Gardens near Galveston</td>
<td>TBD</td>
</tr>
</tbody>
</table>

Deadlines for *The Billet* (2 months before the next meeting) June 1, 2001, and September 14, 2001
The Tokai-Mura Criticality Accident: Reviewed and Lessons Learned

David Hearnsberger

On September 30, 1999, Japan Nuclear Fuel Conversion Company (JCO), a subsidiary of Sumitomo Metal Mining Company, began production for an order of 18.8% enriched U-235 for the JOYO experimental fast breeder reactor. Briefly, the event involved dissolution of just over 16 kg of uranium oxide (U3O8) enriched to about 18.8% U-235 in several 2.4 kg batches. This action resulted in a high concentration of U-235 that was sufficiently moderated for the geometry of the vessel to achieve a quasi steady-state nuclear chain reaction for about 20 hours after the initial pulse. JCO typically processes 5% enriched U-235 for normal reactor fuel needs. In this particular instance, JCO had not performed any higher enrichment processing for three years, and the order from JOYO required the 18.8% enriched fuel.

An investigation conducted by the International Atomic Energy Agency (IAEA), the Japanese Government, and others revealed three root causes for the accident. The root causes were: (1) inadequate regulatory oversight, (2) lack of an appropriate safety culture, and (3) inadequate worker training and qualification. The consequences of these actions were that three individuals were exposed to doses greater than 50 mSv (5 rem). One individual was exposed to about 16 to 20 Gy (1600 to 2000 rads), who died 12 weeks after the incident. A second individual was exposed to about 6 to 10 Gy (600 to 1000 rads), who died seven months after the incident. The third individual was exposed to about 1 to 4.5 Gy (100 to 450 rads) who remains alive. Additionally, a briefing by the Japanese Atomic Energy Research Institute (JAERI) indicated that 24 JCO workers involved in recovery operations to terminate the criticality received individual doses up to about 48 mSv (4.8 rem). JAERI also estimated that a total of 436 persons, including local residents, were exposed to radiation from the accident (mostly below 50 mSv or 5.0 rem). The peak radiation level 90 meters (98 yards) away just outside the nearest site boundary was about 0.84 mSv hr⁻¹ (84 mrem hr⁻¹) due to gamma radiation, and neutron radiation levels were not detected. Figure 1 depicts the JCO site and shows the location of the conversion building. The gamma radiation levels, at the same location, dropped to about half of the initial levels at nine hours after the incident at which time neutron radiation levels measured 4.5 mSv hr⁻¹ (450 mrem hr⁻¹). Two hours later, neutron levels fell to about 3 mSv hr⁻¹ (300 mrem hr⁻¹) and finally no detectable radiation levels above background were detected at a time of 20 hours after the incident. In the final report made by the Japanese government, the maximum measured dose to the general public was 16 mSv (1.6 rem).

The IAEA fact-finding mission concluded that the accident did not involve widespread contamination of the environment and that there was little risk off site once the accident was brought under control. Since the incident did not result in a significant release of radioactive material, the team concluded that the incident was essentially an “irradiation” accident and not a contamination accident. Even though 160 TBq (4324 Ci) of noble gases and 2 TBq (54.1 Ci) of gaseous iodine were released in the building, only trace amounts escaped from the building. In addition, the Japanese government noted that exposure rates at the site boundary from the gases totaled only about several micro Gy hr⁻¹ (i.e. less than about 1 mrad hr⁻¹).

While the accident posed no threat to the health and safety of the people living in the vicinity of JCO, the accident did have substantial psychological and economic impacts on the local population. During the accident, about 310,000 people were ordered to remain in shelters and residents living within 350 meters (about 382 yards) of the facility were evacuated. JCO is expected to pay approximately $93 million in compensation to nearby residents and businesses even though it was only insured for $9.43 million.

The NRC staff reviewed the available information on the criticality accident to identify lessons learned that could be applied to U.S. commercial facilities, and to determine whether improvements in the NRC’s existing safety oversight programs were necessary. The NRC agreed with the Japanese government’s and the IAEA’s root cause analysis. The NRC staff developed actions to assure that a similar accident would be unlikely at U.S. commercial facilities. Moreover, the NRC concluded that the current NRC oversight program at nuclear fuel fabrication, conversion, and enrichment facilities in the U.S. makes an accident similar to that occurring at Tokai-mura unlikely. Therefore, no revisions to the NRC’s oversight program are needed in response to the lessons learned from the criticality accident at Tokai-mura.
Chapter Returns to Riverwalk Venue with Successful Winter Meeting

Susan Jablonski, President-Elect

On Saturday, January 20, 2001, the South Texas Chapter of the Health Physics Society, Inc. (STC-HPS), returned to the beautiful San Antonio Riverwalk with an impressive turnout for the South Texas Annual Radiation Safety Conference & Affiliates Exhibition at the Four Points Sheraton Hotel Riverwalk. Including STC affiliate representatives, more than 100 STC members attended the day-long event. The Affiliates Exhibition enjoyed a roomy conference space for booths and interaction with attendees that is a rare commodity at these meetings in the popular venue of downtown San Antonio.

This Winter Meeting continued the tradition of focusing on one of the Chapter’s most valued membership classifications, affiliates membership. The morning and afternoon technical presentations featured our affiliate members, augmenting the traditional affiliate exhibition area. Representatives from many of the Chapter’s affiliate members provided attendees with a substantive message about their services, new innovations, and products. STC Affiliate companies in attendance and giving presentations were ThermoMeasureTech (formerly TN Technologies), ApteconR/Cogema Instruments, Bicron NE/Saint-Gobain Crystals, Canberra Industries, Inovition Radiation Measurements, Iso-Tex Diagnostics, Ludlum Measurements, Owens Scientific, Perkin Elmer Instruments-ORTEC, Phoenix Scientific, Perma-Fix Environmental Services, Saint-Gobain Crystals & Detectors, Suntrac Services, Teledyne Brown Engineering, Thermo Eberline Instruments, Waste Control Specialists, and William B. Johnson.

Supplementing the program this year was an innovative continuing education short course conducted by Mr. Ken Krieger and Dr. Bob Emery. The course, entitled “Special Professional Enrichment Session: Dose Reconstruction,” was aimed at creating a new service for members attending STC meetings. Using Power-Point format, Dr. Emery and Mr. Krieger provided participants with information and example dose equations beneficial to the health physicist. Future STC meetings will contain early morning short courses similar to this highly successful and well-attended pilot course conducted by Bob and Ken.

This meeting also featured the annual visit to the STC-HPS by the President-Elect of the national Health Physics Society—George Anastas accompanied by his wife, Lila. Mr. Anastas attended and addressed the STC Executive Council during their evening meeting on Friday, January 19, 2001. For the Saturday technical meeting, President-Elect Anastas provided the Chapter with a presentation on HPS.

Continued on p. 22.
South Texas Chapter of Health Physics Society, Inc.

Spring Meeting
Texas A&M University - Memorial Student Center
College Station, Texas
May 4 & 5, 2001

Annual Meeting and Student Papers

Richard D. Neff Memorial Student Award

Featuring the Director of the Institute of Food Science and Engineering, TAMU
Mark McClellan, Ph.D.

As prescribed by our Bylaws, the objectives for which the Chapter was organized are to aid in the development of scientific knowledge, to provide for and give support to meetings for the discussion of scientific endeavor, to encourage scientific research and education dedicated to the science of radiation protection, to aid in scientific research and education opportunities in the field of health physics and radiation protection for college and university students and for other scientific and educational purposes. This meeting is dedicated to facilitating all of the ideals on which our Chapter was founded and provides an excellent opportunity to become acquainted with students (future employees) and chapter members (employers). Students provide presentations on their research and compete for the Richard D. Neff Memorial Student Award, a $100 cash award.

The meeting will also feature a luncheon presentation from Mark McClellan, Director, Institute of Food Science and Engineering, Texas A&M University. To further benefit attendees and in accordance with Article V, Sections 12 and 15, STC President Ian Hamilton will present a report on the “State of the Chapter” and Treasurer Michael Charlton will present a report on the Chapter financial status, respectively. The business meeting of the South Texas Chapter shall conclude with the installation of new chapter officers.

CEUs Awarded for LMP and MRT Certifications*

*Based on evaluation of finalized agenda by TDH - Professional Licensure staff. STC-HPS members will be notified via e-mail of CEU amounts and affected certifications.
# Agenda

**Friday, May 4, 2001**  
Memorial Student Center, Texas A&M University, College Station, Texas  

6:00 - 9:00 p.m. Executive Council Meeting, Room 203

**Saturday, May 5, 2001**  
Memorial Student Center, Room 292 (on aerial walk between Rudder Tower and MSC)  
Emergency messaging during the meeting—(512) 454-3737

9:00 - 9:10 a.m. Welcome—STC President-Elect Susan Jablonski

9:10 - 9:30  *Occupational Uptake of Iodine-131 for Veterinary Applications*, Missy Reynolds and Gaby Lugo, Texas A&M University

9:30 - 9:50  *Dose and Risk Assessment in a Neutron Activation Analysis Facility*, David Dodoo Amoo, The University of Texas at Austin

9:50 - 10:10  *Radon Levels in On-Campus Student Housing*, Susrut Usugaonker and Laura Grady, Texas A&M University

10:10 - 10:30 Break—Coffee, assorted hot teas and baked goods

10:30 - 10:50  *Statistical Validation of a Methodology Used for Personnel Dosimetry Issuance Determinations*, Rachel Gorham, University of Texas Houston Health Science Center

10:50 - 11:10  *Dose Analysis of an Assured Isolation Facility Using MCNP*, Matt Arno, Texas A&M University

11:10 - 11:30  *FUDS Remediation Project at TSTC Radioactive Waste Site*, Krista Knox, Texas State Technical College

11:40 - 1:10 p.m. Lunch with Distinguished Speaker, Room 226, Mark McClellan, Ph.D., Director, Institute of Food Science and Engineering, Texas A&M University  
*“Texas Barbecue” Buffet*  
Sliced Brisket, Smoked Chicken, Barbecued Ribs, Smoked Sausage, Potato Salad, Coleslaw, Fried Okra, Ranch-style Beans, Corn on the Cob, Trimmings, Jalapeno Cornbread, French Bread, Butter, Texas Pecan Pie, Peach Cobbler, Iced Tea, and Coffee

1:20 - 1:40  *Metabolic Modeling of Plutonium In the Human Skeletal System*, Donald Halter, Texas A&M University

1:40 - 2:00  *State of Washington Radiation Safety Program Outcomes as Indicated by the Results of Regulatory Compliance Inspections in 1999*, Bruce Brown, University of Texas Houston Health Science Center

2:00 - 2:20  *Electret Ion Chamber-Based Surface Contamination Check at the TAMU Nuclear Science Center*, Sung-Woo Lee and Si Young Jang, Texas A&M University

2:20 - 2:40 Break—Coffee, canned soda, and baked goodies

2:40 - 3:00  *Fission Neutron/Gamma Irradiation of Bacillus Thuringiensis Bacteria at the Texas A&M University Nuclear Science Center Reactor*, David Heamsberger, Texas A&M University

3:00 - 3:20  *Neutron Activation Analysis of an Unknown Mineral Sample*, Rob Buchheit and Michael Pope, Texas A&M University

3:20 - 3:40  *Cosmic-Ray Count Variation due to Altitude*, Eddie Horace and Tate Mueller, Texas A&M University

3:40 - 4:00 Break

4:00 - 4:30 Business Meeting of the South Texas Chapter—New Officer Installation and Awarding of the Richard D. Neff Memorial Student Presentation Award
Map to MSC and Parking

Directions

*From Austin & San Antonio:* Take IH-35 North to Hwy 290 East to State Route 21. East on State Route 21 to Hwy 47 (on outskirts of Bryan near Texas A&M Riverside Campus). Head east on Hwy 47 (which will eventually become Hwy 60 or University Drive). Past Easterwood Airport exit, veer to the right onto West By-Pass (2818). Turn left at stoplight onto George Bush Drive. Continue northwest on George Bush Drive to Houston St. (2nd stoplight). Turn left on Houston St. to enter the University Center Parking Garage.

*From Houston:* Take Loop 610 South/West. Take the Highway 290 exit (towards Austin). Stay on Hwy 290 until you reach Hwy 6 (just north of Hempstead). Turn right onto Hwy 6 North all the way to College Station. Near College Station, continue north on BUSINESS 6 (Texas Ave.) to George Bush Drive. Turn left onto George Bush Drive. Continue west on George Bush Drive to Houston Street (3rd stoplight). Turn right on Houston St. to enter the University Center Parking Garage.

Hampton Inn

Amenities Include
Complimentary Expanded Continental Breakfast ◆ Complimentary Shuttle between hotel and Texas A&M University
Outdoor pool with sun deck ◆ Off site health club passes (at a minimal charge) ◆ Data ports on all phones, fax and copier services

Directions

*From San Antonio & Austin -* IH-35 North to Highway 290 East to Highway 21 East to Highway 47 South, exit left onto FM 60 toward College Station, pass A&M campus, turn left onto Texas Avenue, hotel on left before Applebee’s.

*From Houston -* Highway 290 West to Texas A&M University (Business Highway 6). Pass A&M campus, hotel on left before Applebee’s.

For Hotel Reservations
(979) 846-0184

A block of rooms has been reserved for Friday, May 4, 2001 and Saturday, May 5, 2001 until April 20, 2001 under the name - South Texas Chapter of the Health Physics Society - or - use code STC. Room rates will be $64 per night. In order to secure this rate you must call the reservation telephone number listed above and specify that you are with the South Texas Chapter of the Health Physics Society - or - use code STC. After the reservation deadline, reservations will continue to be accepted based strictly on room availability, however, extension of the $64 rate will be unavailable. Therefore, make your reservations early!
Pre-Registration Form

2001 Annual Meeting, May 4 & 5, 2001 ♦ Memorial Student Center, TAMU
STC Registration Deadline - April 27, 2001 ♦ Hotel Registration Deadline - April 20, 2001

Attendee’s Name ________________________________________________________________________________________
Attendee’s Address ________________________________________________________________________________________
City_______________________________________________ State _________________________ Zip __________________

☐ STC Member (technical session and lunch) - $ 45
☐ STC Member (technical session ONLY) - $ 25*
☐ STC Member (lunch ONLY) - $ 25

☐ Non-STC Member (technical session and lunch) - $ 55**
☐ Non-STC Member (technical session ONLY) - $ 35*, **
☐ Non-STC Member (lunch ONLY) - $ 35

☐ Student (technical session and lunch) - $10

☐ I would like to be a Meeting Mentor
☐ I would like to have a Meeting Mentor
(A Meeting Mentor assists a new attendee in meeting others and answering questions)

☐ My area of interest or expertise __________________________

☐ Need a receipt for this meeting
☐ Need CEU certificate

Mail registration form(s) with your check (made payable to the STC-HPS) to arrive before April 27, 2001, to:

Michael Charlton, Treasurer
South Texas Chapter - HPS
8811 Warley Heights
San Antonio, TX  78254
Phone (210) 567-2955
Fax (210) 567-2965

Pre-registration will close on APRIL 27, 2001. If you will not be able to attend the meeting, please call and cancel your reservation PRIOR TO APRIL 27, 2001. Any reservation not canceled by April 27, 2001, will be regarded as a confirmed reservation and monies will be due for the meeting expenses. Refunds will be honored only for cancellations made before April 27, 2001. Registration fees collected after April 27, 2001, or at the door, if space is available, will be $10 extra.

*This price DOES NOT include lunch. If contemplating on-site purchase, meeting space and lunch cannot be guaranteed on the day of the meeting.

**Non-members may select option of applying for South Texas Chapter–Health Physics Society membership at the meeting and enjoy privileges of membership at future Chapter events.
**STC-HPS Financial Planning Update**

*Michael A. Charlton*

*During the January 2001 Executive Council Meeting, President Hamilton appointed an ad hoc committee to prepare a report on the financial status of the STC-HPS. The committee is composed of Mike Charlton (Treasurer), Ian Hamilton (President), Susan Jablonski (President-Elect), and Ken Krieger. This committee will plan expenditures and financial goals for the next five years. General guidelines to steer the financial health of the STC-HPS will be established. The committee will issue a draft report in May 2001.*

**Fixed Gauge Licensees**


*There have been several failures of the Kay-Ray Model 7062B/BP series source housing in the field due to installation of these devices in excessive shock or vibration environments. Kay-Ray Sensall, Inc. reported the problem via a notification letter to licensees dated October 1999. Even though the Model 7062B/BP series devices have been tested to specifications found in MIL-STD-202F Method 201A, they should not be installed in areas where these specifications are exceeded. Displacement during vibration is not to exceed 0.060 inch double amplitude in the frequency range of 10 to 55 Hz in any direction. The manufacturer recommends installing these gauging systems away from shock/vibration environments.*

*For further information on this subject, please contact Kay-Ray/Sensall Inc. at (847) 803-5100.*

**Projected Time Line for Revision to BRC Rules**


<table>
<thead>
<tr>
<th>Specific Rule</th>
<th>Actions Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 TAC §289.257, “Packaging and Transportation of Radioactive Materials”</td>
<td>Submitted to the Texas Board of Health for final adoption February 25, 2000, to become effective October, 2000, and will be mailed by October 9, 2000.</td>
</tr>
<tr>
<td>25 TAC §289.201, “General Provisions for Radioactive Material”</td>
<td></td>
</tr>
<tr>
<td>25 TAC §289.202, “Standards for Protection Against Radiation from Radioactive Material”</td>
<td></td>
</tr>
<tr>
<td>25 TAC §289.231, “General Provisions for Standards for Protection Against Machine-Produced Radiation”</td>
<td></td>
</tr>
<tr>
<td>25 TAC §289.204, “Fees for Certificates of Registration, Radioactive Material Licenses, Emergency Planing and Implementation, and Other Regulatory Services”</td>
<td>Submitted to the Texas Board of Health for final adoption on May 17, 2000. Rules become effective July 1, 2000, and will be mailed by approximately mid-June. The new fees implemented will be included in the July billings.</td>
</tr>
<tr>
<td>25 TAC §289.228, “Radiation Safety Requirements for Analytical and Other Industrial X-Ray Equipment”</td>
<td></td>
</tr>
</tbody>
</table>

**Riverwalk**

*Continued from p. 17.*

Board national initiatives and the upcoming national outreach program, “Radiation Safety Without Borders.”

The business meeting of the STC and a special awards presentation were conducted at the afternoon luncheon held at La Margarita Restaurant and Oyster Bar in colorful El Mercado (Market Square). Special trolleys were chartered to ferry attendees to and from El Mercado and the meeting venue. President-Elect Anastas presented HPS Chapter Volunteer of the Year awards to deserving STC members—David Fogle, John Hageman, Robert Ludlum, and Pete Myers. STC Past-President Fogle presented STC Acknowledgments of Exceptional Volunteer Service to active STC members—Bill Huckabee, Susan Jablonski, Ken Krieger, Stacy Krieger, and Linda Morris. The afternoon luncheon was truly complete with the entertainment of local mariachis in the upstairs private dining area.

The STC Winter Meeting ended with the awarding of numerous door prizes, featuring a Palm Pilot, CD/radio player, computerized label maker, soft-sided brief case, hats, T-shirts, lottery tickets, CDs, books and many other special prizes. Nearly all who stayed for the door prize drawing went home with an unexpected gift, even special guests George and Lila Anastas. Thanks to all the STC affiliates who exhibited, presented, and graciously donated door prizes to help this meeting be a great success. Special thanks to Ralph Heyer, Chair, Affiliates Committee, for helping to organize such an effective and successful meeting.*
South Texas Chapter – Health Physics Society
Chapter Dues Payment/Membership Application Form
(Please Print – This information is used for mailing labels and directory listing.)

Name ________________________________________________ Business Name _________________________________________
Home Address ________________________________________ Business Address _______________________________________
                                                                                                         ______________________________________________________
                                                                                                         ______________________________________________________
                                                                                                         ______________________________________________________
Home Phone _________________________________________ Business Phone _________________________________________
Home Fax ____________________________________________ Business Fax ___________________________________________
Email ________________________________________________

☐ I would prefer to receive mail at: ☐ Home  ☐ Business
☐ I would prefer to receive calls at: ☐ Home  ☐ Business
☐ Yes, I am a National HPS member.
☐ Yes, I am a Certified Health Physicist.
☐ Yes, I am a Registered Radiation Protection Technologist.
☐ I would like to be a Meeting Mentor
☐ I would like to have a Meeting Mentor
(A Meeting Mentor assists a new attendee in meeting others and answering questions.)
My interest or area of expertise ___________________________
                                                                                                         ______________________________________________________

Please check the STC-HPS committee(s) on which you would like to actively serve.
☐ Nominating  ☐ Meeting Program  ☐ Membership  ☐ Publications
☐ Legislation  ☐ Public Relations  ☐ Affiliate  ☐ Other/Ad Hoc
☐ Student Assistance

Enclosed is my check #____________ made payable to the STC-HPS for the following:

STC-HPS dues for the year:

Regular membership: $10.00/yr × _____ Years = $ __________________
Student membership: $ 5.00/yr × _____ Years = $ __________________
Student Scholarship Fund Donation (tax deductible) = $ __________________
Science Teachers Workshop Donation (tax deductible) = $ __________________
Total Enclosed = $ __________________

Please mail this form with your check or money order (please do not mail cash) to:

Jim R. Sharp  Phone: 281-316-0052
Membership Committee  Fax: 281-316-1028
P.O. Box 910  Email: jsharp713@aol.com
Alvin, TX  77512-0910
## SOUTH TEXAS CHAPTER—HEALTH PHYSICS SOCIETY—2001 AFFILIATE MEMBERSHIP ROSTER

The affiliate membership of the South Texas Chapter (STC) is listed below. Our affiliates help support our Chapter’s functions, and we should support them. They contribute substantially to the STC, and each should be thanked by our considering their products or services first. Also, tell them we sent you.

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Contact Information</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADCO Services</td>
<td>Len Warbiany, 17650 Duval Drive, Timley Park, IL 60477</td>
<td>Tinley Park, IL 60477</td>
</tr>
<tr>
<td>E: <a href="mailto:len@adcoservices.com">len@adcoservices.com</a></td>
<td>T: 708.429.9769</td>
<td></td>
</tr>
<tr>
<td>ADT/ELJEN Technology</td>
<td>Chris Maxwell, Post Office Box 870, 300 Crane Street, Sweetwater, TX 79556</td>
<td>Sweetwater, TX 79556</td>
</tr>
<tr>
<td>E: <a href="mailto:cmmaxwell@camalott.com">cmmaxwell@camalott.com</a></td>
<td>T: 800.399.4557</td>
<td></td>
</tr>
<tr>
<td>APTEC-NRC Inc.</td>
<td>Bill Richardson, Post Office Box H, 125 Titas Avenue, Warrington, PA 18076</td>
<td>Warrington, PA 18076</td>
</tr>
<tr>
<td>E: <a href="mailto:general@aptc-rnc.com">general@aptc-rnc.com</a></td>
<td>T: 215.343.3067</td>
<td></td>
</tr>
<tr>
<td>Biometrics, Inc.</td>
<td>John McCormick, Post Office Box 870, 300 Crane Street, Sweetwater, TX 79556</td>
<td>Sweetwater, TX 79556</td>
</tr>
<tr>
<td>E: <a href="mailto:j_mccormick_bionomics@email.msn.com">j_mccormick_bionomics@email.msn.com</a></td>
<td>T: 215.343.3067</td>
<td></td>
</tr>
<tr>
<td>Canberra Industries</td>
<td>Steve Vittalo, Route 2 Box 154F, Gladewater, TX 76547</td>
<td>Gladewater, TX 76547</td>
</tr>
<tr>
<td>E: <a href="mailto:swittalo@canberra.com">swittalo@canberra.com</a></td>
<td>T: 933.297.2987</td>
<td></td>
</tr>
<tr>
<td>E: 933.297.2987</td>
<td>F: 933.297.2987</td>
<td></td>
</tr>
<tr>
<td>Inovision Radiation Measurements</td>
<td>Todd Jokast, 6045 Cochran Road, Cleveland, OH 44139</td>
<td>Cleveland, OH 44139</td>
</tr>
<tr>
<td>E: <a href="mailto:tjkast@inovision.com">tjkast@inovision.com</a></td>
<td>T: 216.507.0228</td>
<td></td>
</tr>
<tr>
<td>E: 216.507.0228</td>
<td>F: 541.461.7787</td>
<td></td>
</tr>
<tr>
<td>ISO-TEX Diagnostics, Inc.</td>
<td>Tom Maloney, Post Office Box 909, Friendswood, TX 77546</td>
<td>Friendswood, TX 77546</td>
</tr>
<tr>
<td>E: <a href="mailto:isotex@aol.com">isotex@aol.com</a></td>
<td>T: 281.482.1231</td>
<td></td>
</tr>
<tr>
<td>Isotope Products Laboratories</td>
<td>John Paul Pasquerelli, 1600 N. Keystone Street, Burbank, CA 91504</td>
<td>Burbank, CA 91504</td>
</tr>
<tr>
<td>E: <a href="http://www.isotopelaboratories.com">www.isotopelaboratories.com</a></td>
<td>T: 818.593.1049</td>
<td></td>
</tr>
<tr>
<td>Ludium Measurements, Inc.</td>
<td>Dwane Stevans, Post Office Box 810, 501 Oak Street, Sweetwater, TX 79556</td>
<td>Sweetwater, TX 79556</td>
</tr>
<tr>
<td>E: <a href="mailto:eudium@ludium.com">eudium@ludium.com</a></td>
<td>T: 806.622.0828</td>
<td></td>
</tr>
<tr>
<td>F: 915.235.4672</td>
<td>F: 915.235.4672</td>
<td></td>
</tr>
<tr>
<td>Microtec Services Inc.</td>
<td>Quintin Stokey, 110 Charles Street, Pasadena, TX 77506</td>
<td>Pasadena, TX 77506</td>
</tr>
<tr>
<td>E: <a href="mailto:qas.msi@evi.net">qas.msi@evi.net</a></td>
<td>T: 713.475.2274</td>
<td></td>
</tr>
<tr>
<td>NELCO</td>
<td>Paul Holingsing, 4600 Homestead Road, Houston, TX 77028</td>
<td>Houston, TX 77028</td>
</tr>
<tr>
<td>E: <a href="http://www.nelco.com">www.nelco.com</a></td>
<td>T: 713.675.3266</td>
<td></td>
</tr>
<tr>
<td>Owens Scientific, Inc.</td>
<td>Jack Owens, 11140 Westheimer, Private Mail Box 136, Houston, TX 77042</td>
<td>Houston, TX 77042</td>
</tr>
<tr>
<td>E: <a href="mailto:owenssc@flash.net">owenssc@flash.net</a></td>
<td>T: 281.498.3311</td>
<td></td>
</tr>
<tr>
<td>F: 281.933.0522</td>
<td>F: 281.933.0522</td>
<td></td>
</tr>
<tr>
<td>Perkin Elmer Instruments</td>
<td>Eric Daggett, 801 South Illinois Avenue, Oak Ridge, TN 37830</td>
<td>Oak Ridge, TN 37830</td>
</tr>
<tr>
<td>E: <a href="http://www.perkinelmer.com">www.perkinelmer.com</a></td>
<td>T: 865.483-2251</td>
<td></td>
</tr>
<tr>
<td>F: 865.483-2251</td>
<td>F: 865.483-2251</td>
<td></td>
</tr>
<tr>
<td>Perma-Fix Environmental Services</td>
<td>Ben Warren, 1490 N.W. 67th Place, Gainesville, FL 32953-1692</td>
<td>Gainesville, FL 32953-1692</td>
</tr>
<tr>
<td>E: <a href="http://www.perma-fix.com">www.perma-fix.com</a></td>
<td>T: 800.365.6066</td>
<td></td>
</tr>
<tr>
<td>F: 352.373.0040</td>
<td>F: 352.373.0040</td>
<td></td>
</tr>
<tr>
<td>Phoenix Scientific Sales</td>
<td>Bill Tucker, Post Office Box 2074, Roswell, GA 30076</td>
<td>Roswell, GA 30076</td>
</tr>
<tr>
<td>E: phoenixsciences@ mindspring.com</td>
<td>T: 770.642.8529</td>
<td></td>
</tr>
<tr>
<td>F: 770.642.8529</td>
<td>F: 770.642.8529</td>
<td></td>
</tr>
<tr>
<td>Protechnics Environmental Services, Inc.</td>
<td>Larry Stephenson, 1165 Dairy Ashford, Suite 444, Houston, TX 77079</td>
<td>Houston, TX 77079</td>
</tr>
<tr>
<td>E: <a href="http://www.protechnics.com">www.protechnics.com</a></td>
<td>T: 281.496.3734</td>
<td></td>
</tr>
<tr>
<td>PULCIR, Inc.</td>
<td>Joe Scott Eddleman, 9209 Oak Ridge Parkway, Oak Ridge, TN 37830-3500</td>
<td>Oak Ridge, TN 37830</td>
</tr>
<tr>
<td>E: <a href="http://www.pulcir.com">www.pulcir.com</a></td>
<td>T: 865.927.6358</td>
<td></td>
</tr>
<tr>
<td>Radiation Technology</td>
<td>Jack Hendrik, Post Office Box 27637, Austin, TX 78755</td>
<td>Austin, TX 78755</td>
</tr>
<tr>
<td>E: <a href="http://www.saint-gobain.com">www.saint-gobain.com</a></td>
<td>T: 512.346.7608</td>
<td></td>
</tr>
<tr>
<td>SAINT-GOBAIN Crystals &amp; Detectors</td>
<td>Terrence Moore, 343 Knollwood Lane, Woodstock, GA 30188</td>
<td>Woodstock, GA 30188</td>
</tr>
<tr>
<td>E: <a href="http://www.bicron.com">www.bicron.com</a></td>
<td>T: 770.926.1660</td>
<td></td>
</tr>
<tr>
<td>F: 770.926.5541</td>
<td>F: 770.926.5541</td>
<td></td>
</tr>
<tr>
<td>Dave Stadelman, 3005 Alder Grove, Spring, TX 77388</td>
<td><a href="http://www.bicron.com">www.bicron.com</a></td>
<td></td>
</tr>
<tr>
<td>E: <a href="mailto:david.p.stadelman@bicron.com">david.p.stadelman@bicron.com</a></td>
<td>T: 281.355.1033</td>
<td></td>
</tr>
<tr>
<td>F: 281.288.7571</td>
<td>F: 281.288.7571</td>
<td></td>
</tr>
<tr>
<td>Southwest Research Institute</td>
<td>John Hageman, Honorary Affiliate, 6202 Cuiltra Road, San Antonio, TX 78238-5166</td>
<td>San Antonio, TX 78238-5166</td>
</tr>
<tr>
<td>E: <a href="mailto:jhageman@swri.org">jhageman@swri.org</a></td>
<td>T: 512.388.9287</td>
<td></td>
</tr>
<tr>
<td>F: 512.388.9333</td>
<td>F: 512.388.9333</td>
<td></td>
</tr>
<tr>
<td>W. H. Henken Industries, Inc.</td>
<td>William Scott Henken, 415 Lillard Street, Arlington, TX 76012</td>
<td>Arlington, TX 76012</td>
</tr>
<tr>
<td>E: <a href="mailto:rhaye@thermoMT.com">rhaye@thermoMT.com</a></td>
<td>T: 817.261.5566</td>
<td></td>
</tr>
<tr>
<td>Waste Control Specialists</td>
<td>Greg Broda, Post Office Box 1937, 1710 West Broadway, Andrews, TX 77501-9714</td>
<td>Andrews, TX 77501-9714</td>
</tr>
<tr>
<td>E: johnnuclear.com</td>
<td>T: 505.394.4300</td>
<td></td>
</tr>
<tr>
<td>F: 505.394.3427</td>
<td>F: 505.394.3427</td>
<td></td>
</tr>
<tr>
<td>Tededye Brown Engineering</td>
<td>Dave Henry, 300 Sparkman Drive, Cummings Research Park, Post Office Box 070007, Huntsville, AL 35805</td>
<td>Huntsville, AL 35805</td>
</tr>
<tr>
<td>E: <a href="mailto:dave.henry@tfe.com">dave.henry@tfe.com</a></td>
<td>T: 256.726.1922</td>
<td></td>
</tr>
<tr>
<td>F: 256.726.3585</td>
<td>F: 256.726.3585</td>
<td></td>
</tr>
<tr>
<td>Texas State Technical College</td>
<td>Linda Morris, Honorary Affiliate, 3061 Campus Drive, Waco, TX 76705</td>
<td>Waco, TX 76705</td>
</tr>
<tr>
<td>E: <a href="mailto:lllorris@stc.edu">lllorris@stc.edu</a></td>
<td>T: 254.867.2952</td>
<td></td>
</tr>
<tr>
<td>W. K. Henken Industries, Inc.</td>
<td>William Scott Henken, 415 Lillard Street, Arlington, TX 76012</td>
<td>Arlington, TX 76012</td>
</tr>
<tr>
<td>E: <a href="mailto:cmaxwell@camalott.com">cmaxwell@camalott.com</a></td>
<td>T: 817.261.5566</td>
<td></td>
</tr>
<tr>
<td>F: 505.394.3427</td>
<td>F: 505.394.3427</td>
<td></td>
</tr>
<tr>
<td>Fiber Optic Communications</td>
<td>Greg Broda, Post Office Box 1937, 1710 West Broadway, Andrews, TX 77501-9714</td>
<td>Andrews, TX 77501-9714</td>
</tr>
<tr>
<td>E: johnnuclear.com</td>
<td>T: 505.394.4300</td>
<td></td>
</tr>
<tr>
<td>F: 505.394.3427</td>
<td>F: 505.394.3427</td>
<td></td>
</tr>
<tr>
<td>Waste Control Specialists</td>
<td>Greg Broda, Post Office Box 1937, 1710 West Broadway, Andrews, TX 77501-9714</td>
<td>Andrews, TX 77501-9714</td>
</tr>
<tr>
<td>E: johnnuclear.com</td>
<td>T: 505.394.4300</td>
<td></td>
</tr>
<tr>
<td>F: 505.394.3427</td>
<td>F: 505.394.3427</td>
<td></td>
</tr>
</tbody>
</table>