



THE *BILLET* STC NEWSLETTER

OFFICIAL NEWSLETTER of the STATE of TEXAS CHAPTER of the HEALTH PHYSICS SOCIETY

Volume 39, Number 1 • Specialists in Radiation Safety • March 2018

The STC-HPS Annual Student Presentations & STC-HPS EC Meeting

The Annual Student Presentations & STC-HPS Executive Council Meeting will be held at Texas A&M University–College Station

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Abstracts from the December 2017 Affiliates Fair

If you weren't able to make it to the December 2017 meeting, these abstracts will let you know what you missed.

In Memoriam: Captain Howard L. Kusnetz (USPHS ret)

Extracted from published obituary in the Houston Chronicle, Dec. 31, 2017

Texas NIRDS Meets

Texas NIRDS Meets on the Possible Harmonization of ALARA Investigation Levels for Clinically Exposed Healthcare Workers across Texas Medical Center Member Organizations

Congratulations on Your CHP Examinations

Congratulations Bill Gordon & Michael Martin

**Annual Student Presentations & STC-HPS
Executive Council Meeting
Texas A&M University- College Station
April 7, 2018**



*Texas A&M Institute of Preclinical Studies
800 Raymond Stotzer Parkway, Suite 2060
College Station, TX 77843-4478
<http://tips.tamu.edu/>*

*The State of Texas Chapter of the Health Physics Society (STC-HPS) will be hosting the Student Presentations in College Station, TX, on Saturday April 7, 2018 from 8:00 am to 5:00 pm. This meeting provides an excellent opportunity to learn about Texas student projects and a chance to network with your STC-HPS friends and colleagues. Please do come, join us for some delicious lunch (Barbecue) and support the students!
The Executive council meeting will be held on April 6, 2018 at 6 pm
1111 Research Parkway, Rm 126C*

Meeting Registration

Online registration is preferred. Please click [here](#) to register!
When you register online, you can pay online with credit card or mail in a check.

OR

Complete and mail a registration form.
Please click [here](#) to download the Registration Form.

The Preregistration Deadline is March 31, 2018

Hotel Information & Reservations

<http://group.home2suites.com/STCHPSMeeting>

**300 Texas Avenue, S. College Station
Texas 77840 USA TEL: +1-979-703-8288
FAX: +1-979-703-8287**

A block of 10 rooms (King Studio suites for \$114/night + tax, complimentary breakfast, complimentary WiFi) has been reserved for the evening of April 6, 2018. To reserve one of these rooms, please call **979-703-8288** and reference “**STC-HPS Meeting**”
This block of rooms is available until sold out, or until **March 16, 2018**.

*See you all in College Station!!
Latha Vasudevan, President-Elect STC-HPS*

Abstracts of Presentations at the Affiliates Fair, December 2017

Presentation Abstracts

- [Activities of the Texas Preventative Radiological and Nuclear Detection Program](#)
John Hageman
 - [Radiological Operations Support Specialist \(ROSS\): A NIMS-Typed Position](#)
Ruth McBurney/Roland Benke/Ken Gavlik
 - [Partnerships: The Foundation of Successful Emergency Response](#)
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 - [Utilizing Fallout Planning Tool \(FPTool\) for Emergency Response in Atmospheric Detonations](#)
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 - [Radiological Safety Program Management-Lessons from Hurricane Harvey](#)
Otu Inyang
 - [Alternative Calibration/Check Source Materials for Beta/Gamma Instruments](#)
Nathan Smith
-



Abstract: Activities of the Texas Preventive Radiological and Nuclear Detection Program

John Hageman, MS, CHP

Texas recognizes that radiological and nuclear threats exist; thus, the State must and is taking steps to detect and report unauthorized attempts to import, possess, store, develop, or transport nuclear or radiological materials. In August 2015, Texas established the Nuclear Sector Working Group (NSWG) to advance the State's radiological/nuclear detection and response capabilities. The NSWG is an organization of public and private critical infrastructure stakeholders, working jointly to share information, identify and address common operational concerns, and increase the security and resiliency of Texas to preventively detect nuclear and radiological threats.

The NSWG partnered with the US Department of Homeland Security's Domestic Nuclear Detection Office (DNDO) to develop and sustain a robust Preventive Radiological and Nuclear Detection (PRND) program. This partnership supports the Texas Homeland Security Strategic Plan 2015-2020 to reduce the risk of CBRNE incidents by enhancing early-detection and control capabilities.

Abstract: Radiological Operations Support Specialist (ROSS): A NIMS-Typed Position

Ruth McBurney (CRCPD), Roland Benke (Texas ROSS), Ken Gavlik (Texas ROSS)

ROSS is a growing team of trained emergency responders with radiological health expertise and is an asset for state and local authorities. Volunteers are selected for US Federal Emergency Management Administration (FEMA) training and complete requirements for an intermittent position with National Incident Management System (NIMS) typing. Hear how ROSS support emergency response operations. Meet ROSS in your state. Learn about ROSS tools and how to volunteer.

Radiological incidents add complexity to the response. Be prepared. Local ROSS can arrive on scene quickly and augment local expertise. Include ROSS in your emergency response plans and integrate ROSS with state and local emergency preparedness activities.

Abstract: Partnerships: The Foundation of Successful Emergency Response

[Monica Martinez](#)

Successful emergency response starts with partnerships. Inclusive planning, training, and exercise programs ensure responders are familiar with your facility and personnel and ensures that you are familiar with how you fit into the response structure during an emergency. This session will discuss the importance of building community partnerships with first responders and lessons learned from the Texas A&M University 2017 Nuclear Science Road Full-Scale Exercise.

Abstract: Emergency Response to Radiological Events in North Texas - Events and Status

John C. White

North Texas is the fourth largest Metropolitan area in the country. The Dallas-Fort Worth Standard Metropolitan Statistical Area comprises 15 counties, 143 municipal authorities, and 7.5+ million people. In 2015, the total financial impact was \$560 Billion. Texas is a 'Home Rule' State, so the local authorities bear the load for immediate emergency response, and the sheer number of local authorities makes response to a radiological event, which undoubtedly would involve a number of those authorities, difficult. To prepare for a radiological or nuclear event, Law Enforcement, Fire/Haz, Emergency Operations, and radiation professionals have made an effort to acquire equipment, establish cooperative agreements, schedule training, and have drills for radiological preparedness and response.

This presentation provides an overall view of the effort, its successes and failures, National and local training resources involved, and describes the effort to refit the largest Fire/Haz department with new and upgraded radiological detection equipment and sketches the future efforts in this ongoing project. At the conclusion of this presentation, you will have a Reference Sheet, a Bugout Bag Checklist, and have improved understanding of pursuing a complex response involving many authorities.

Utilizing Fallout Planning Tool (FPTool) for Emergency Response in Atmospheric Detonations

Katie M. Cook – Texas A&M University

Atomic fallout modeling provides emergency response teams with critical maps, data, and projections used to plan for or react to atmospheric nuclear explosions. One current modeling program is Fallout Planning Tool (FPTool). FPTool aids responders and planners with dose map overlays which can easily be integrated into Google Earth. FPTool is designed with the user in mind and can be utilized without in depth technical knowledge. A quick tutorial of this program will offer sufficient knowledge on how to implement this software and the pros and cons of its capabilities.

Abstract: Activities of the Texas Radiation Advisory Board

John P. Hageman, MS, CHP

The Texas Radiation Advisory Board (TRAB or Board) was created by the Texas Radiation Control Act pursuant to the Texas Health and Safety Code, Section 401.015. The Board normally consists of 18 members, appointed by the Governor, and consists of 15 Radiation Subject Matter Experts and 3 members of the public. The TRAB is directed to review and evaluate State radiation policies and programs; and to make recommendations and furnish technical advice to the following agencies:

- The Texas Department of State Health Service (DSHS)
- The Texas Commission on Environmental Quality (TCEQ)
- The Railroad Commission of Texas (RRC)
- Any other state agencies or groups that may be involved with radiation safety, such as the Texas Low-Level Radioactive Waste Disposal Compact Commission (TLLRWDC)

The TRAB has recently been working to address issues involving:

- Storing spent nuclear fuel in Texas
- Storing WIPP waste in Texas temporarily
- Decommissioning of the Army's reactor, the Strugis, in Galveston
- Helping the public have a better understand of radiation
- Lowering the eye-dose limit from 15 rems to 5 rems or less
- Training requirements for fluoroscopic operators

Iodine-131 MIBG Therapy at Texas Children's

Jay Poston, Ph.D., CHP

Iodine-131 metaiodobenzylguanidine (I-131 MIBG) is used to treat neuroblastoma in young children. The therapy calls for patients to receive 18 mCi per kilogram, which results in a significant administered activity for this patient population. At Texas Children's, a suite of two rooms, one for patient and the other for parents, was specifically designed and remodeled for this treatment. Both rooms can be used by non-MIBG patients as needed.

The majority of the patient care is performed by family members to limit the occupational dose to the HemOnc nursing staff. Family members receive radiation safety training several weeks prior to treatment and a refresher the day before treatment. TX Children's Hospital personnel training consists of classroom radiation safety training, hands-on training with a variety of equipment, and simulation of respiratory arrest and catheter failure.

Family member dose is limited by regulation and is tracked using electronic personnel dosimeters (EPD). The dose to the Hematology/Oncology (Hem/Onc) nursing staff is limited by administrative controls and is tracked through the use of EPDs and passive dosimeters. Other hospital personnel are not allowed to enter the patient room during the treatment. Proper Personal Protective Equipment (PPE) donning and doffing techniques are part of the radiation safety training received by all employees and family members. A hand and foot monitor and a portable Geiger-Mueller (GM) survey meter are located outside the patient room for monitoring after exit. A catheter is placed on the day of infusion to drain radioactive urine directly to the sanitary sewer minimizing radiation dose to the bladder. The patient is typically admitted to the hospital for 5 days and is discharged once the measured dose rate is less than 7 mrem per hour at 1 meter. Once the patient is discharged, the room is decontaminated and cleared by radiation safety personnel before being released for terminal cleaning and return to service.

STC-HPS Student Assistance Program & Other Topics

Linda Morris

This presentation will share information regarding the STC Student Assistance Program (SAP) which has been in effect for almost 20 years. The SAP has the following components:

- Dedicated page on the STC-HPS website
- Annual presentation of \$1000 education grants to an associate, undergraduate, and graduate student studying health physics or a closely-related program
- Reduced annual membership fees and registration for conferences
- Annual travel grants to student members who are attending a national HPS meeting or conference
- Annual Student Meeting and Scientific Presentations with first and second place cash awards
- STC regional and state science & engineering fair participation benefiting grades 6-12

A brief overview of the status of Texas higher education in health physics will be included.

The presentation will conclude with a different topic – Texas Low-Level Radioactive Waste Compact news and educational workshops. A workshop for Texas generators and other interested parties was conducted at the Texas Capitol on November 15, 2017. The next series of workshops will be aimed at out-of-compact generators and will be offered in 2018.

Abstract: Communications in Stressful Situations (Emergencies)

John W. Poston, Sr.

Effective emergency planning and response must include clear communications with the news media and the public. There are many examples of poor communications, especially those that result from poor planning and training. Poor communications can affect public perception of the emergency and can produce unnecessary stress and, perhaps, panic. This presentation will provide information on how the public reacts in stressful situations (i.e., emergencies) and provides some “tools” for use in these situations. Much of this information was based on the publications of Dr. Vincent T. Covello at the Center for Risk Communication.

Abstract: Radiological Safety Program Management-Lessons from Hurricane Harvey

Otu Inyang

Implementing a radiation safety program with threat of hurricanes requires additional controls beyond the minimum for normal operations. Safety and compliance initiatives become more inundating when managing multiple sites with many users. The University of Houston, one of the top research institutions within the Texas Gulf Coast region, has witnessed several hurricanes with varying degrees of devastation to research facilities and critical infrastructure that support radiation-related research. The presentation will highlight issues faced during the recent landfall of Hurricane Harvey and opportunities for improvement, especially those impacting radiation safety professionals and regulatory compliance.

Abstract: Alternative Calibration/Check Source Materials for Beta/Gamma Instruments

Nathan Smith

Suitable radioactive check sources are indispensable for the reoccurring functional verification of radiation detectors and instruments. Historically, dose rate detectors required calibration laboratories or calibration jigs, but this is not necessarily required for highly efficient gamma detectors and portable surface contamination survey meters. Because these instruments are sensitive to even very small amounts of radiation, check sources of extremely low activity are sufficient. Conventional sources made of manmade isotopes have inherent variability issues, shipping concerns, disposal issues and radioactive decay must be taken into account.

Alternative materials and objects containing naturally occurring radioactivity (NORM) have at times been used as workarounds. Old radium painted watches, lantern mantles and uranium glazed ceramics are typical examples of these workarounds. These items can be sufficient to test the basic function of a radiation detector, but they are not suitable for quantitative calibration purposes. Quantitative measurements using potassium compounds can be performed. It's an established practice to use KCl in Marinelli beakers to calibrate a gamma spectrometer at 1.46 MeV. Unfortunately, due to low gamma emission rates and high gamma energy of K-40, in conjunction with low specific activity and low density of KCl a large sample volume and long counting time is required.

Review of possible alternative sources lead to Lutetium. The rare earth element Lutetium contains the stable isotope Lu-175 at a natural abundance of 97.4% and the primordial isotope Lu-176 with a 3.6×10^{10} year half-life and natural abundance of 2.59%, which yields a specific activity of the pure element of Lutetium of approximately 54 Bq/g. The gamma and X-ray spectrum shows several peaks essentially in the range between 50 keV and 300 keV, and the maximum beta energy is 600 keV. Highly uniform Lu₂O₃ powder can be formed into high-density ceramics and shaped into optimized dimensions to facilitate instrument response verification.

Depending on the design, these sources are ideal for verifying the beta radiation response of surface contamination monitors, the gamma radiation response of scintillation detectors and the energy calibration of gamma spectroscopic instruments. The process of forming the ceramic has

advantages over traditional source manufacturing and results in a consistent activity and activity distribution between sources of a specific design. The activity is controlled by the weight and dimensions of the source and because of the 3.6×10^{10} year half-life there is no need for decay corrections. The use of a Lutetium source, therefore, allows for the direct comparison of the response of sensitive radiation detectors without the usual uncertainty in respect to the individual activity and surface emission rate of a conventional source. Furthermore, due to the natural origin and low specific activity, in respect to many national and international regulations, Lutetium sources do not meet the definition of radioactive material and in turn reduce costs associated with maintaining radioactive material including shipping and disposal costs.

In Memoriam: Captain Howard L. Kusnetz (USPHS ret)

By: Robert Emery, DrPH, CHP (*text extracted from published obituary in the Houston Chronicle, Dec. 31, 2017*)

Captain Howard L. Kusnetz (USPHS ret), 1929–2017

Captain Howard L. Kusnetz (USPHS ret), PE, CIH, CSP, died on December 21, 2017, in Houston, TX. He was born in Brooklyn, NY, and received his Chemical Engineering degree from the University of Cincinnati. After completing a graduate degree in Public Health from Columbia University in 1950, he was commissioned as an Ensign in the U.S. Public Health Service, and began a distinguished 40-year career in industrial hygiene.

Of special interest to the health physics community is his contributions to the field. While he was stationed in Salt Lake City, UT, he participated in studies on the health effect of uranium mining and milling. As part of this assignment, he developed a method for measuring Radon and associated progeny. The Kusnetz method, which was recognized and validated internationally, continues to be the official EPA method for such measurements today. Other radiation-related assignments over the years included two stints at the continental atomic bomb tests in Nevada and the measurement of potential health hazards in nuclear submarines.

He is survived by his loving wife of 67 years, Florence, three children, nine grandchildren, three great-grandchildren and more than a hundred nieces and nephews in Israel.

Donations may be made in Howard's memory to Aishel House, 1955 University Blvd, Houston, TX 77030, which provides assistance to out-of-town patients and their families who come to the Texas Medical Center.



Texas NIRDS Meets

By: Dr. Susanne M. Savely, RSO, Baylor College of Medicine, STC-HPS Past-President

Texas NIRDS Meets on the Possible Harmonization of ALARA Investigation Levels for Clinically Exposed Healthcare Workers across Texas Medical Center Member Organizations

The Texas Medical Center-based News in Radiation Safety (NIRDS) met on 11-17-2017, to discuss the recent National Council on Radiation Protection and Measurements (NCRP) recommendation regarding the reduction of the dose limit to the lens of the eye. Attendees included representatives from The University of Texas Health Science Center at Houston, Baylor College of Medicine, Baylor CHI St. Luke’s Medical Center, Harris Health System, Houston Methodist, Houston Methodist Research Institute, Memorial Hermann, Michael E. DeBakey Veteran Affairs Medical Center, Texas Children’s Hospital, and The University of Texas MD Anderson Cancer Center.

The Texas Medical Center (TMC) is the largest medical complex in the world. It is composed of 46 member institutions, including the largest children’s and cancer hospitals in the world. The TMC is the 8th largest business district in the U.S., where over 10 million patients are seen per year. In addition to the provision of medical care, the TMC is at the forefront of advancing life sciences, nurturing cross-institutional collaboration.

The NCRP has recently recommended a change in the annual limit of radiation dose to the lens of the eye due to new information on potential effects. “The NCRP determined that it is prudent to reduce the recommended annual occupational dose limit for the lens of the eye from an equivalent dose of 150 mSv (or 15,000 mrem - more familiar units added here for comparison) to an absorbed dose of 50 mGy (or 5,000 mrem - more familiar units added here for comparison). The NCRP added, “In fluoroscopically guided interventional and cardiac procedures, the use of adequate eye protection is a necessity.”

This recommendation could affect personnel who regularly perform highly-involved interventional fluoroscopic procedures. During the group meeting, various radiation safety professionals reported that no other employees receive doses to their eyes at levels near the existing or recommended limit. Most other radiation workers in the research and clinical setting receive less than 500 mrem annually, or less than 10% of the annual recommended maximum. Currently, this dose reduction is a recommendation, but it is assumed that it will be most likely adopted at some point by federal and state authorities. Currently, some TMC work locations provide leaded eyewear for use during interventional fluoroscopy, and others ask that users buy their own through their departments.

Dr. Lou Wagner, RSO for the LBJ Hospital of the Harris Health System, presented on the “Possible Harmonization of Personal Dosimetry ALARA Investigation Levels for Clinically Exposed Healthcare Workers across Texas Medical Center Member Organizations.” He and Dr. Bob Emery (aka “Safety Bob”), RSO for the UT Health Science Center at Houston, led a discussion among the 22 other attendees. Drs. Ben Archer (X-ray RSO, Harris Health), Lou Wagner, and Bob Emery are proposing adoption across the TMC of the following ALARA levels for clinical healthcare providers:

Proposed ALARA Investigation levels for clinically-exposed healthcare providers

Calendar quarterly interval	Cumulative (year to date) recorded dose (mrem)	
	Lens dose	Deep body dose (with R2 calculation applied)
First quarter ending March 31	1,000	1,000
Second quarter ending June 30	2,000	2,000
Third quarter ending September 30	3,000	3,000
Fourth quarter ending December 31	4,000	4,000

The ensuing discussion revealed that some organizations are reviewing dosimetry reports and comparing them to their pre-set ALARA levels on a monthly or quarterly basis, as opposed to the cumulative method above. Most expressed concern about radiation dosimeter wear compliance and current and upcoming compliance with leaded eyewear recommendations. Dr. Wagner revealed that he will be asking the Chief Technicians in the LBJ Hospital (Harris Health) interventional fluoroscopy labs to record who is

wearing their dosimeter(s) and who is wearing their eyewear in the absence of an RSO presence in the labs. The NIRDS agreed that there was a need to continue to increase awareness about the important of compliance with dosimetry and PPE requirements.

Action items that resulted from the discussion include:

1. The NIRDS will compare their current ALARA levels with those proposed above, with an eye towards a uniform adoption of the proposed levels resulting in harmonization throughout the TMC.
2. Dr. Bahadir Ozus, Dr. Susanne Savely and Dr. Janet Gutierrez will develop and send a survey out to the NIRDS regarding their current ALARA levels and whether or not they are expressed cumulatively, monthly, or quarterly.
3. De-identified interventional exposure data will be pooled for review by interested NIRDS. De-identification of the exposure data is important because the reports are considered to be medical records. This effort will also be coordinated by Dr. Bahadir Ozus, Dr. Susanne Savely and Dr. Janet Gutierrez.
4. The NIRDS will approach a major dosimetry vendor that is used by the bulk of the attendees about creating a single, non-social security, ID number for each individual enrolled in the dosimetry program to streamline dose report reviews for medical personnel that work at multiple locations in the TMC.

Drs. Ben Archer, Lou Wagner, and Bob Emery are hoping that the adoption across the TMC of the ALARA levels proposed above for clinical healthcare providers will aid in data collection and comparison. It is hoped that the resulting harmonization of ALARA levels and subsequent data generated will streamline future interactions with the TDSHS on implementation of the upcoming legislation regarding eye lens dose. Lunch at the 12–1 p.m. meeting was generously provide by the UT Health Science Center at Houston.



Congratulations Bill Gordon & Michael Martin

By:

Congratulations on your CHP examinations

In the 2017 Certified Health Physics (CHP) examination, Willian (Bill) J. Gordon passed Part 1. CONGRATULATIONS Bill! Bill is a Texas A&M University graduate and has served as the STC-HPS webmaster, along with Will Pate for several years.

T. Michael Martin, also an STC-HPS member, passed Part 2 of the CHP examination. He is one of 54 out of 104 candidates celebrating completing the American Board of Health Physics (ABHP) certification requirements and is eligible for certification.



STC – EC Meeting – Bastrop, TX
Dec 4, 2017

1) Persons in Attendance:

Tracy Tipping
Janet Gutierrez
Linda Morris
John Hageman
Jay Poston
Sandra Ramirez (Jimenez)
Latha Vasudevan
Jennifer Cercero
Bobby Janeka
Ken Krieger
Jacob Navar
Will Pate
Billie Harvey

2) Meeting Convened

Billie Harvey
2nd: Tracy Tipping
Meeting Convened 6:37 pm

3) Approval of Minutes

Tracy Tipping
2nd: Jay Poston
Minutes are approved 6:39

4) Reports Made

President – Amanda Sullivan

- State Charter Submission – submitted 12/1/2017. Thanks to everyone for getting this together.
- Ali Simpkins Nomination for HPS Fellow – waiting on one last nominations letter from another group within the HPS before submission.
 - Needs three
 - Send Ali's resume to Linda Morrison and Ken Krieger and then they will send letters to Amanda Sullivan to forward

President-Elect – Latha Vasudevan

Suggestion of College station for April meeting

Student chapter starting at Texas A&M

Latha V. will work on scheduling for April meeting – tentative date weekend of April 7

Suggestions for the September meeting

Tentative- Dallas area for September meeting, visit of Comanche Peak – Only US Citizens allowed for tour of plant

Wi-fi would be nice for future meetings if it would be included in the contract to have free or reduced fee wi-fi.

Admissions/Membership Committee Report - Amanda Sullivan, Membership Chair

	Category	2017	Comments	2016	2015	2014	2013	2012	2011
1	Honorary Lifetime Memberships	2	Hageman, Poston	1	1	2	2	2	2
2	Individual Memberships	117		111	116	130	241	200	208
3	Student Memberships	11		62	10	11	22	22	25
4	Science Fair Winners	3		2	0	2	0	4	
	Sub-Total	115		176	127	143	167	222	239
5	Affiliate Memberships	15		23	22	22	18	24	23
	Total	135		199	149	165	185	246	262

(Numbers of 2016 Members, above, includes New Members listed below)

New Members

Rachelle Marcus	Student	TSTC
Candace Tuttle	Student	TSTC
Kristen Sheaffer	Regular	NIH
John Contreras	Regular	UTH San Antonio
Maya Nair	Regular	University of North Texas Health Science Center
Roland Benke	Regular	Atom Consulting
Austin Horne	Regular	
Theresa Collins	Regular	
Matthew Kennington	Regular	

+

Affiliates Report – Jennifer Cerecero

1. Affiliate Members to Date – 16 total
2. Affiliate Meeting

- a. Donations ~ \$3500 total from vendors (NSSI – one complete break)
 - b. 14 Tables for vendors – 13 vendors attended
 - c. Raffle
3. January 2018 – Will email out reminders for dues & new affiliates

Secretary – Billie Harvey

Nothing to report

Treasurer – Jennifer Cerecero

Petty Cash Fund: \$ 85.00

Bank Accounts:

Bank Account	Previous Balance	Interest Received	Current Balance
Science Teacher (0279)	\$ 3989.83 (April 11, 2017)	\$ 1.15	\$ 3990.98 (November 9, 2017)
Student Scholarship (5456)	\$ 5118.00 (April 14, 2017)	\$ 1.48	\$ 5119.48 (November 14, 2017)

Bank Account	Previous Balance	Net Change	Current Balance
Operating Account (1166)	\$39566.06 (April 19, 2017)	(\$2086.55)	\$37479.51 (November 29, 2017)

Deposits into Operating Account:

PayPal	Treasurer Deposits	Total
\$7653.27	\$1245.00	\$8898.27

Payments from Operating Account:

EXPENSE	AMOUNT
Website Fees	\$152.91
Office Supplies (Treasurer Folders, Name Badges)	\$115.59
Billet Fees	\$1000.00
Art Hall Awards	\$243.72
Science Fair Awards/Winner	\$194.60

Constant Contact	\$157.50
TSTC Waco Food	\$1106.50
Hyatt Lost Pines (Bastrop Deposit)	\$5500.00
Post Office Box	\$64.00
Student Scholarships	\$1000.00
Student Awards	\$950.00
Scholarship	\$500.00
TOTAL	\$10984.82

Summary of Meetings:

	Number Attending/Registered to	Amount Received	Meeting Cost	Difference
Waco Meeting 4/2015	49 attendees	\$1145.00	\$737.49	\$407.51
San Antonio Meeting 9/2015	60 attendees	\$4533.89	\$5093.31	(\$ 559.42)
College Station Meeting 4/2016	52 attendees	\$1115.00	\$2544.28	(\$1429.28)
Clear Lake Meeting 9/2016	80 attendees	\$8603.58	\$10019.12	(\$1415.54)
Waco Meeting 4/2017	41 attendees	\$1153.93	\$1106.50	\$47.43
Bastrop Meeting 12/2017	70 attendees	\$11670.00	\$19000 TBD	(7330.00) TBD

Pending Deposits: \$410.66 (Paypal)

Annuities:

Annuity	Previous Values	Current Values
Lincoln (699, 700, & 701)	\$ 30922.39 04/19/2017	\$ 31331.88 11/29/2017
Edward Jones	\$12034.88 04/19/2017	\$10012.60 11/29/2017
Total Values	\$150957.27 04/19/2017	\$161151.27 11/29/2017

*Rolled the cash from the Edward Jones account into the mutual funds.

Student Assistance Committee Report – Linda Morris, Committee Chair

1. **Education Grant Winners:** This year's winner at the Associate Degree level is Rachelle Marcus from TSTC. Rachelle is a first year Radiation Protection Technology major. She has stated that she is paying for her education herself, so the grant will be an important financial help to her. She is attending this

conference. The graduate degree winner is Anna Laura Licon from UTHSC-SA. She is in the medical physics doctoral program, having graduated from TAMU a year earlier. Anna Laura could not attend the meeting today due to final exams. There were no applicants for the undergraduate award.

2. **Neff-Poston Award Winner:** Soliel Hernandez is a TAMU senior radiological health engineering major from Olathe, Kansas. She has conducted research with Dr. Akabani at TAMU, and participated in an internship at UTHSC-SA. Her interests are in the field of medical health physics, and she would like to present her research at the Spring 2018 STC student conference. She thanks the STC for endowing a scholarship that benefits her. Both she and her younger sister are first-generation college students.
3. **Status of Health Physics Higher Education in Texas:** A presentation of this topic will be given tomorrow morning. There are significant issues facing health physics higher education which might impact the pipeline of HP professionals in our state in the future.
 - a. **Texas A&M University:** The graduate health physics program is being phased out as current students graduate. No new students are being accepted. The Radiological Health Engineering (RHE) major is also not accepting new students. According to Dr. John Poston, there is a discussion in the Nuclear Engineering program about the possibility of a minor in the field. Except for Dr. Poston, there are no dedicated health physicists on the faculty. The TAMU student branch of the HPS has been inactive, but Zachary Olson (student) has tried this semester to revitalize it. I emailed Zachary offering the STC to help by sending speakers and possibly buying pizza, and I just heard back from him as I was writing this report. He would like for us to visit their chapter later in January. It should be noted that there were several TAMU students who attended the national HPS meeting in Raleigh last summer. I believe that they were Dr. Marianno's students. When I asked one of them if they were members of the STC, she said that she was not.
 - b. **Texas State Technical College Waco:** There have been significant changes in the administration at TSTC which have affected the Radiation Protection associate degree program. Some of these changes have resulted in decreased numbers of students majoring in RPT. Jacob Navar was hired to replace me as the RPT faculty person, and he has made valiant efforts to keep the program going. He is very good about bringing students to meetings and taking them on field trips. There will be more information presented tomorrow morning. Jacob is attending this conference.
 - c. **Other Academic Programs:** Other academic programs offer health physics – related degrees, minors, or options. The University of Houston – Downtown has an interdisciplinary program that offers nuclear engineering and health physics options. Mary Jo Parker heads this program, and she has been very good about bringing students to our Spring student presentation meetings to give talks. UHD has a NRC Minority-Serving Population grant which currently supports 43 students. A few of those students are also STC members. UTHSC-SA has a medical health physics graduate program which has two slots. Texas Southern University in Houston has a health physics program in the Physics Department headed by Dr. Mark Harvey. They were accepting student cohorts every other year, but I have no current information on that program. There are several other universities that have nuclear-related options.
4. **STC-HPS Student Members:** Amanda provided a printout of current STC student members. There are 14 members, three of whom are high school students. Four are from UHD, one from UTHSC-SA, three from TSTC, and one from TAMU.

5. **Annual Meeting and Student Presentations:** It would be a good idea to get the information regarding this meeting out as soon as possible so that students can plan to present in the spring. Our Neff-Poston awardee Soliel Hernandez wants to present, and other university faculty such as Drs. Marianno, and Parker can be contacted.
6. **Science Fairs 2018:** I have included a table of state and regional science fair dates and locations. I will include this information in my presentation on Tuesday morning. Anyone interested can contact me at lkmorris288@gmail.com.

Legislative Committee Report – Bobby Janecka

Legislation passed by Texas Legislature

SB 1330 by Seliger, Relating to funding for the operations of the Texas Low-Level Radioactive Waste Disposal Compact Commission.

Addresses funding for the Texas LLRW Compact Commission by correctly depositing fees collected to fund the Compact Commission into the appropriate revenue account.

Took effect on September 1, 2017.

SB 1667 by Seliger (companion HB 3946 by Landgraf), Relating to the nature, funding, and functions of the Texas Low-Level Radioactive Waste Compact Commission.

Affirms the autonomy and authority of the Compact Commission as an independent entity, and limiting the oversight of the Texas Comptroller in disbursing funds appropriated from the state.

Took effect on June 1, 2017.

HB 2662 by Landgraf (companion SB 1137 by Seliger), Relating to the Texas Low-Level Radioactive Waste Disposal Compact waste disposal facility.

Temporarily (until September 1, 2019) reduces the surcharge imposed on all “import” out of compact waste from 20% to 10% and temporarily reduces the state fee on all compact disposal from 10% to 5% (more specifically, it eliminates the 5% Texas received while preserving the 5% Andrews County receives).

Requires the Texas Commission on Environmental Quality to conduct a study on available volume and curie capacity in the compact disposal cell once every four years, providing the authority to require state generators to provide information annually on disposal needs and amount of waste generated and stored on-site.

Creates an interim legislative oversight committee, consisting of six legislators, the Compact Commission chairman, and an appointee from the state of Vermont, to report to the legislature on December 1, 2018 after studying the following:

1. the annual fixed costs incurred by the operator of the compact facility;
2. the party state compact waste disposal fees established in rule by the Texas Commission on Environmental Quality in accordance with Section 401.245;

3. the contract review process as carried out by the Texas Commission on Environmental Quality;
4. the relationship between the state, party state generators, and operator as it relates to the operation of the compact facility;
5. the contingency plan required under the Texas Low-Level Radioactive Waste Disposal Compact;
6. the need for and effects of fees and surcharges assessed for disposal of waste in the compact facility, including the fees and surcharges assessed under the following sections:
 - a. Section 401.052(b)(5);
 - b. Section 401.207(g);
 - c. Section 401.245; and
 - d. Section 401.246(a)(6);
7. the cost of a state-run compact facility and the effect a state-run facility would have on rates and generators in compact states; and
8. any other matters the committee determines are relevant to the compact facility and oversight of the compact facility.

Took effect on June 15, 2017.

State Agency Rulemakings

No current draft or proposed rulemakings by DSHS.

TCEQ proposed a rulemaking on November 1, 2017 to implement House Bill 2662 (see description above) and delete reference to the 5% state fee imposed on compact waste disposal.

TCEQ anticipates proposing a rulemaking to implement a volume adjustment to the compact disposal rate, reducing or eliminating several of the fee surcharges from the disposal rate table, and will also propose minor changes to the rules to maintain compatibility with NRC.

TCEQ also continues to work on the rulemaking petition submitted by the Texas Mining and Reclamation Association, Uranium Committee, which was approved in 2016 and stakeholder discussions about the draft rulemaking are currently underway.

Federal Agency Rulemakings

The Environmental Protection Agency (EPA) extended the comment period for new proposed rulemaking for 40 CFR Part 192, regarding Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings. Comment period closed on October 16, 2017.

The NRC has four rulemaking matters currently open for public comment regarding:

Naturally-Occurring and Accelerator-Produced Radioactive Materials (comments close December 6, 2017);

Low-Level Radioactive Waste Disposal (comments close December 18, 2017); and

Fire Protection Compensatory Measures (PRM-50-115) (comments close Dec. 20, 2017).

Three rulemakings that could establish new requirements are anticipated to be complete this fiscal year:

Performance-based emergency core cooling system acceptance criteria rules (Part 50) have an estimated final rule publication date of January 5, 2018.

LLRW disposal rules update (Parts 20 and 61) have an estimated final rule publication date of August 5, 2019 (I believe NRC listed this as anticipated this fiscal year in error).

Miscellaneous Items

The HB 2662 interim legislative oversight committee has not yet formally met, though legislative staff have been in contact with relevant state agencies with preliminary requests for information. The lieutenant governor appointed Senator Don Huffines to the committee. The appointments by the speaker of the house and state of Vermont have not yet been announced.

Science Teachers Workshop Report - Ken Krieger, Science Teacher Workshop Coordinator

In last year or two there has a lot of interest in having a workshop but there hasn't been enough time for people to fit it into their schedules.

Tentatively will do a workshop at the Waste Management Meeting in Phoenix.

If anyone has junior high on up level contacts, might be good to encourage them if there's interest to ask their science teachers to request a workshop.

Public Relations Committee Report - Janet M Gutiérrez

Working on write up items to submit to National. Send any ideas you may have to Janet.

Nominations Chair Report – Sandra Ramirez

Nothing to report. Three offices to be filled next year. Secretary, President Elect, and Board Member.

Future STC-HPS Meetings and Deadlines for *The Billet* – John Hageman, Editor of *The Billet*

<u>Date</u>	<u>Location</u>	<u>Topic</u>	<u>Deadline</u> for <i>The Billet</i>
Sept. 12-13, 2017	Bastrop, TX	State of Texas Affiliates' Fair and Technical Meeting	NA

February 4-7, 2018	Denver Marriot City Center	51 st Midyear HPS Meeting	NA
April __, 2018	College Station, TX	STC Student Presentations & Annual Business Meeting	Feb. 1, 2018
July 15-19, 2018	Cleveland, OH	63 rd Annual HPS Meeting	NA
Sept. __, 2018	TBD)	Affiliates' Fair and Technical Meeting	July __, 2017

Suggestion made to put abstracts from meeting in next Billet
Presentations will be put on the website
Website update in works.

5. New Business

Chapter has two projectors. Laptop or tablet cost that can be passed from administration to administration?

Google docs access link to meeting docs and have STC-HPS google docs

This meeting is 5.25 CEU credit hours for meeting.

6. Adjournment

Motion to adjourn: Jay Poston

Second: Sandra Ramirez

Meeting adjourned. 7:50 pm