

# The CHP Corner, June 2019

For CHPs, aspiring CHPs, and anyone else on the bell curve



## The American Academy of Health Physics

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### **EDITOR'S CORNER: REFLECTIONS ON A RECENT NEW MEXICO TRIP**

*Dan Sowers, CHP Corner Editor*

Up until last month my only trip to New Mexico had been in passing through on a coast to coast Navy transfer a decade and a half ago. For a week, I found myself a mile high and in the vicinity of both Los Alamos and the Trinity test site at Alamogordo, and on my last day in Albuquerque with a bit of free time before my flight I spent an hour at the [National Museum of Nuclear Science and History](#). This is an excellent excursion for those of you stopping by Albuquerque for work or play, and yes they still have a few pieces of *Trinitite* for sale in the gift shop. As the timing worked out, I finished the book *American Prometheus: The Triumph and Tragedy of J. Robert Oppenheimer* by Kai Bird and Martin Sherwin during the week. It made for some deep reflections on the converging paths of physics, war, and politics over the last ¾ century. Anybody else read any good books lately? Send me your recommendations and short book reviews at [dsowers430@gmail.com](mailto:dsowers430@gmail.com).

### **CHPS IN THE SPOTLIGHT: DRS KRAGE AND POUDEL**

*Dan Sowers, CHP Corner Editor*

In the May 2019 CHP Corner, we promised a column highlighting health physicists out there on the front lines doing great work for their peers, the Academy, and the health physics profession. Introducing the first ever CHPs in the Spotlight: Drs. Eric Krage and Deepesh Poudel. They actually require very little introduction as they've been active lately with their [Part 2 exam questions](#) and [answer bank](#).

Dr. Eric Krage grew up on a farm in Sioux City, IA and now works for the Naval Nuclear Laboratories in Pittsburgh, PA. During his undergrad work at South Dakota State University he took the first class offered in health physics. A metaphorical light bulb illuminated about  $1.342 \times 10^{-17}$  ly above his head; a bright idea had been formed. Connecting science to people sparked his passion. His future in health physics went critical during his first, and the Health Physics Society's 56<sup>th</sup>, meeting in Palm Beach, FL, where "as an outsider still to the profession I was welcomed with open arms<sup>1</sup>." He attributes his success in graduate school at Idaho State (ISU) to his PhD advisor and mentor, Dr. Richard Brey.

Because he loves a good challenge, he pursued certification. He was told the pass rate statistics are dismal, but stuck with the good advice to do as many practice problems as practicable, then



do more. To this end, he did every [published prior exam question dating back to 1986](#). What was most helpful? “Do problems and come up with your own solutions and reference EVERY equation<sup>1</sup>.”



Dr. Deepesh Poudel completed high school in Nepal and left for the United States at age 18. Nowadays he finds himself as an internal dosimetrist (Health Physicist III) at Los Alamos National Lab (LANL). Determined to find the niche in the cyclotron of options in which he would eventually fit, health physics was ultimately isolated as a “natural choice because it had some aspects of all of the fields that I wanted to pursue<sup>2</sup>.” After finishing his undergrad and master’s degree at ISU, he found himself quickly drawn back to academia following a short stint working for a radiochemical manufacturing company. He also completed his PhD under the guidance of Dr. Brey at ISU.

Some of the advice Dr. Poudel received such as the “set in stone” study plans – for example, studying so many hours per week on certain things from certain books – were “discouraging and unhelpful<sup>2</sup>.” Like Dr. Krage, he found the most value for part 2 preparation to be in solving, understanding, and mastering prior exam questions and simulated part 2 questions. Dr. Tom Johnson’s review course, taken about a year prior to sitting for part 2, also helped him. He is the most thankful to Dr. Brey and ISU’s health physics program, and for LANL’s Radiation Protection Services Group for making a significant difference in his career path.

In *Start with Why*, Simon Sinek reveals that people don’t buy what you do, they buy why you do it. These two gentlemen - in conjunction with Dr. Tom Johnson - start with why. They are producing, solving, editing, and publishing these exam questions because, in the words of Dr. Poudel, “Eric and I had frequently talked about doing something for health physics students for a long time<sup>2</sup>.” Giving back and serving is what they’re all about, certainly so with Dr. Johnson as their mentor, who “encouraged the idea of doing the CHP practice problems and solutions, and promised to support us with the process<sup>2</sup>.” Ultimately, this endeavor with Dr. Johnson to give back to the field in which they are all so passionate was launched not to promote WHAT they do, but for those aspiring for certification to jump on WHY they’re doing it. Wendell Furry, a student of Oppenheimer’s at Berkeley in the 1930s, quoted him as saying after a challenging lecture, “I can make it clearer, I can’t make it any simpler<sup>3</sup>.” We can’t – and shouldn’t – make certification any simpler, but through mentorship and guidance we can make challenging health physics problems clearer.

On behalf of those gearing up for the ABHP exam in July, those mentoring soon-to-be CHPs, and those quenching that incessant thirst for knowledge, I send a big thank you and round of applause to our first CHPs in the Spotlight: Drs. Eric Krage and Deepesh Poudel!

1. Personal correspondence with Dr. Eric Krage, 28 Apr 2019.
2. Personal correspondence with Dr. Deepesh Poudel, 16 Apr 2019.
3. Bird, K. and Sherwin, M. J. (2005). *American Prometheus: The Triumph and Tragedy of J. Robert Oppenheimer*. New York, New York: Random House, Inc.

## 2019 PART II EXAMINATION PANEL

*Wesley Boyd, Panel Chair*

The Panel is currently working to finalize Part II of the 2019 Exam. At the time of this writing, the ABHP board had reviewed and balloted on the proposed exam questions and the “wise person review” (a three-person panel of recognized health physics experts) was just completed. All that is left is to incorporate the wise-person review comments and distribute the exam.

The Panel is also preparing for the 2019 Part II workshop, which will be held July 6-7 in Orlando, Florida. During the two-day workshop, panel members will review, revise, and approve new exam questions for inclusion in the exam databank. This will ensure that future exams will be fair and challenging.

Why do we have to wait from the 4<sup>th</sup> of July to Thanksgiving to get our exam results? First, the exams have to be copied and sent to Virginia - we don't want to lose the only copy of a candidate's exam. The exams are then reviewed and each question answered by each of the candidates is identified and the grading spreadsheets are developed. The panel is divided into teams of three graders and each team is assigned a question. A copy of the candidate's answer sheet is sent to each grader and the graders spend the next month and a half grading exams, often after work and over the weekends. Some questions have more than 100 candidates answer them. The grading results are then tabulated and sent to the team lead who reviews the grades for consistency. Discussions are held among team members to reconcile any disparities. This process is usually completed by early fall. The candidates are informed of their examination results in November, after the ABHP board meeting.

I would like to thank all those who have helped to make this exam cycle a success. A great big THANK YOU to the entire panel for taking time out of their busy schedules to volunteer for this important task: Vice Chair Jeff Chapman, Past Chair Alan Mabry, Matthew Arno, Steve Brown, William Bullard, Michael Campbell, John Dixon, Daniel Evans, Milan Gadd, Gerald George, Andrea Geyer, Ninni Jacob, Gregory Jones, John Kinneman, Harry Lynn, William McCarthy, Joseph McDonald, Aaron Miaullis, Daniel Miron, Hans Oldewage, Jack Parry, David Rynders, Clifford Stephan, Drew Thatcher, John Tomon, William Uhland, Latha Vasudevan, and Scottie Walker. I would be remiss if I did not thank Amy Wride-Graney for her help in the exam grading process and on arranging the logistics of the panel workshop. Finally, a great big THANK YOU to Kathy Dinnel-Jones who has spent countless hours cleaning up the exam databank and working to make sure it is accessible to the members of the panel and ABHP board. This work has made the exam development much easier and helped to ensure the integrity of the exam.

The Part II Panel is composed 30 volunteers who serve for four years. Each year there are about eight vacancies on the panel that need to be filled. Each member spends 100 to 200 hours per year grading Part II exams and in reviewing/preparing new exam questions for inclusion on future tests. If you are willing to work hard, have fun, and engage in spirited discussion with fellow health physicists, please indicate your willingness to be a panel member when you submit your AAHP annual dues or let a [current panel member](#) know of your interest. We are particularly interested in new panel members with expertise in non-ionizing and power reactor experience.

## **2019 HPS ANNUAL MEETING AAHP SPECIAL SESSION: RISK COMMUNICATION IN THE CONTEXT OF LOW DOSE HEALTH EFFECTS**

*Kathy Pryor and Armin Ansari, Session Co-Chairs*

On Tuesday of the [2019 HPS Annual Meeting](#) in Orlando the AAHP will host an interesting, relevant, and timely session offering several perspectives on risk communication issues in the context of low dose health effects. Presenters will give talks on practical ways to approach and master these communication issues in various areas of health physics practice such as medical exposure situations (including pregnant women/fetal exposures), environmental cleanup, legal implications and complications, radon, TENORM, emergency evacuation/relocation, medical triage, countermeasure administration, and return and recovery issues.

With a lineup of intelligent presenters and apropos presentations, this special session will span a full day. Following a brief introduction, the speakers will present these topics:

- Don Cool – The Use and Misuse of Effective Dose
- Eric Daxon – Science is Not Enough
- Larry Dauer – Say What? Patient-Centered Communication on Benefits and Risks
- Jessica Weider – Risk Communication in Emergency Response and Recovery
- John Frazier – Risk Communications in the Context of Low Dose Health Effects:  
Communicating in the Courtroom
- Armin Ansari – Importance of Audience Research in Communicating Radiological Health Information
- Q&A – audience participation

The session will wrap up with adequate time for valuable Q&A and discussion; please attend to participate! Following the session, the AAHP Business Meeting will be held.

Please contact me with any fresh ideas or comments at [dsowers430@gmail.com](mailto:dsowers430@gmail.com). Hope to see you all in Orlando!