

Public Health Physics Training

Henry Lynn

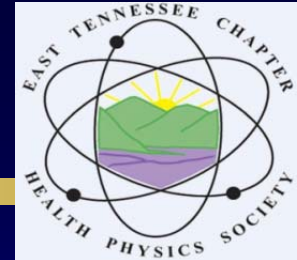
Sr. Health Physicist

USNRC

Technical Training Center, Chattanooga, TN



Mission of the HPS



- **The Health Physics Society is a professional organization whose mission is... excellence in the science and practice of radiation safety.**
 - **The activities of the Society are...**
- # 3 Encouraging scientific, professional, and public education.**
- **The Strategic Plan of the HPS (Jan 2006)**
 - Goal # 5.7 Provide reliable and useful information about radiation protection to people from all walks of life.**

“...the more people understand nuclear science, materials, and radiation, the more likely they are to make informed judgments about nuclear issues.”

**- Former NRC Chairman Dr. Dale Klein
March 11, 2008**

Personal Perspective

- **July 2009 NRC Public Meeting in Erwin, TN**
- **NFS license amendment to process UF₆**
- **Some questions from public displayed lack of knowledge concerning radioactive material in general**

Suggested Format for Public Training

- **Fundamentals* – one hour**
 - **Atomic structure (very basic)**
 - **Sources of radiation (natural, man-made)**
 - **Biological effects (dose terms, risk, etc.)**
 - **Applications (industrial, medical, etc.)**
- * **Simplified Regulatory Guide 8.29, “Instruction Concerning Risks from Occupational Radiation Exposure”???**

- **Questions/Answers – one hour**

- **Hands-on/Demo – one hour**

Required Resources

- **Health Physicists**
 - 2-4 to present material
 - 2-4 others (local HPs hopefully) to answer questions/assist in hands-on portion
- **Instruments/Training Aids (NRC and ORAU to provide?)**
 - Ion chambers, counting station (GM)
 - air sampler, cloud chamber
 - dosimeters (TLD, OSL)
 - lantern mantles/Fiestaware/KCl salt/smoke detector/radium dials/button sources
- **Projector and screen, flipchart**
- **Handouts (presentation slides at a minimum)**
 - local facility details
 - HPS fact sheets?

HPS Fact Sheets

- **Consumer Products Containing Radioactive Material**
- **Depleted Uranium**
- **Environmental Radiation**
- **Food Irradiation**
- **Mobile Telephones**
- **Polonium-210**
- ~~**Potassium Iodide (KI)**~~
- ~~**Is Potassium Iodide a Magic Bullet for Rad. Exp.?**~~
- **Radiation Exposure and Pregnancy**
- **Radiation Exposure from Medical Exams/Procedures**
- **Tanning Salons**

<http://hps.org/hpspublications/radiationfactsheets.html>

Potential Problems/Solutions

- **Disruption**
 - **Forewarn audience that we will be forced to stop the presentation if order cannot be maintained**
 - **Interveners**
 - **Local police attendance?**

- **Tangential, impassioned discussions (hold all questions until Q&A session)**

- **Others?**

Path Forward

- Volunteer to help henryslynn@comcast.net
 - Diverse expertise needed
- Develop training presentations
 - Feedback needed
- Schedule training session(s) – Fall 2010
 - Look for updates on the ETCHPS website
- Revise/improve for future presentations?
 - Erwin, East TN, TN, 50 states...!

Useful Links

- **HPS-sponsored website for public education**
<http://www.radiationanswers.org/>

- **Health Physics Society (HPS) website**
<http://www.hps.org>
 - **HPS radiation safety questions/answers**
<http://hps.org/publicinformation/asktheexperts.cfm>

- **National Cancer Institute websites**
<http://www.cancer.gov/>
<http://seer.cancer.gov/faststats/>
<http://srab.cancer.gov/devcan>