

PRACTICAL MEDICAL HEALTH PHYSICS
SEAAPM Chapter Spring Symposium
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Jerry D. Allison, Ph.D.
Co-directors
Sheraton Inn Augusta, Georgia
March 29 - 31, 1995

This symposium will address the knowledge required for a medical/health physicist to effectively supervise and/or successfully perform radiation safety functions within a dynamically developing regulatory environment. The latest changes in federal and suggested state regulations (SSR) will be emphasized.

Each presenter has more than 15 years practical working experience in medical health physics and most have served as radiation safety officers in a medical environment. A course notebook will be provided to attendees. Application for Continuing Medical Education Credit has been made with the AAPM.

Wednesday, March 29, 1995

6-8 PM Registration and Ice Breaker

Thursday, March 30, 1995

7:30-8:30 Registration and Continental Breakfast

8:30-9:00 **Overview of Health Physics in Medical Institutions:**
Jon Trueblood, Ph.D.

9:00-10:00 **Historical Perspective of Radiation Risk, Quantities and Units:**
Perry Sprawls, Ph.D.
In order to understand the concept of limiting radiation exposure as a measure of risk, one needs to review the historical development of exposure units and quantities.

10:00-12:00 **Control of Personnel Radiation Exposure: *Jim Davis, Ph.D.***
The most sweeping changes in Radiation Safety regulations in the last decade (10 CFR Parts 19 & 20 and in Suggested State Regulations) have significantly increased Radiation Safety Program requirements in worker education, dose estimation, monitoring, and reporting. The control of radiation areas and sources now involves more careful consideration of exposure to workers, patients, the public, and the environment. Increasing regulatory scrutiny mandates that problems revealed by surveys and internal audits reflect resolution and proper documentation in summary reports.

12:00-1:00 Lunch (included)

- 1:00-2:00 **Control of Nuclear Medical Radiation--Organization:**
Jon Trueblood, Ph.D.
 A Quality Management Program (QMP) is now required for all medical radioactive materials licensees. This impacts the radiation safety program administrative structure and work performance details. Internal reviews and audits must be designed to reveal program weaknesses with safety insured through follow-up program modification.
- 2:00-3:00 **Control of Nuclear Medical Radiation--Dose Measurement, Records and Surveys:** *Jerry Allison, Ph.D.*
 The history and measurement accuracy of patient doses must be carefully documented. Surveys and records must be derived from properly calibrated equipment and in the correct units.
- 3:00-4:00 **Control and Safety of Brachytherapy Sources, HDR units and Teletherapy:** *Walter Furr, B.A.*
 Therapy radiation accidents have lead to increased regulatory control of therapy sources and devices. Controversy surrounds the necessary level and type of personnel who are required for safe performance of therapeutic radiation procedures.
- 4:00-5:00 **Mammographic Unit Physicist's Report:** *Donald Frey, Ph.D.*
 Details of the physicist report required by the Mammography Quality Standards Act (MQSA) are evolving. Reporting decisions often require experienced professional judgment.

Friday, March 31, 1995

- 7:30-8:00 Continental Breakfast
- 8:00-9:00 **Radiographic Unit Survey:** *Casimir Eubig, Ph.D.*
 Developments which resulted in improvements in the quality of mammograms are having an effect on survey requirements in radiography. Efforts to standardize reporting are also gaining momentum.
- 9:00-10:00 **Fluoroscopic Unit Survey:** *George David, M.S.*
 The controversy surrounding high dose fluoroscopy has underscored the need to survey fluoro units. Methods for measuring output/input exposure rates and image quality vary widely.
- 10:00-11:00 **Radiation Shielding for X ray Rooms:** *Benjamin Archer, Ph.D.*
 New NCRP guidelines for the shielding of x ray rooms will reflect the current patient and personnel exposure parameters for state-of-the-art diagnostic x ray. In the interim, no single definitive guideline document can be referenced to justify shielding recommendations.
- 11:00-12:00 **Radiation Shielding for Therapy Rooms:** *Pat McGinley, Ph.D.*
 The shielding of therapy rooms must be designed with the most accurate normalized output exposure data for the mixture of radiations of a specific machine. Surveys require proper equipment and experienced judgment to assure compliance with the 100 mrem public exposure limit.
- 7:00-11:00PM Riverboat cruise and dinner