Proposed Rulemaking: Radiation Safety Requirements for Non-Healing Arts Radiation Generating Devices

(25 Pa. Code Chapters 225, 227, 227a and 228)

Environmental Quality Board Meeting
May 19, 2021

Section 302(a) of the Act authorizes the Board to “adopt the rules and regulations of the department to accomplish the purposes and carry out the provisions of [the] act.”

Section 1920-A of the Administrative Code, April 9, 1929 (P.L. 177, No. 175), as amended, 71 P.S. § 510-20.
• Radiological regulations in Chapter 227 for non-medical radiation-producing devices have not been updated since 2009, immediately after the Commonwealth became a NRC Agreement State.

• The Program believed a complete revision of Chapter 227 was needed.

• A re-write of Chapter 227a is presented here.
The proposed amendments:

- Create a concise Chapter 227a for non-medical X-ray operations by separating out field radiography into Chapter 225

- Incorporate current Conference of Radiation Control Program Directors (CRCPD) Suggested State Regulation (SSR) Part H and Part E into this new Chapter.
The proposed amendments:

• Revise the definition of “accelerator or particle accelerator” in Chapter 228 to exactly match the U.S. NRC’s definition.
The proposed amendments to Chapter 225:

- Remove definitions that will be added to the proposed Chapter 227a.
- Add new definitions from CRCPD Part H and training requirements from Part E.
- Revise records retention requirements to 5 years to maintain consistency with other current regulatory provisions.
The current Chapter 227 is proposed to be rescinded and reserved. All regulations from this chapter are proposed to be moved to the new Chapter 227a for non-healing arts radiation-producing devices.
The new Chapter 227a is being proposed to include all non-healing arts radiation-producing devices except field radiography.

Some examples of these devices are Analytical X-ray Gauging Equipment, Electron Microscopes, and X-ray Calibration Systems.
Radiation Generating Machines

Accelerator
X-ray Analyzer
Diffraction Unit
Radiography Unit
X-ray Security Scanner
X-ray Gauge

Photos: https://en.wikipedia.org
Other revisions include:

• Incorporating regulations for new human-use individual X-ray security screening devices.

• These are used to control contraband, drugs, and other illegal items from entering correctional facilities.
• Revised the definition of accelerator to match the federal definition.
There are approximately 1,400 current radiation-producing device Registrants affected by this proposed rulemaking.

A small number have an added initial training cost for the individual X-ray security screening devices.

DEP regional inspectors will provide support to these registrants.
With continuous advancements in non-medical X-ray technology in industrial and academic settings, required controls and user education will strengthen and ensure that public health and safety are protected.

Updating the radiological health regulations is vital for protection of workers and the public.
DEP and the Radiation Protection Advisory Committee (RPAC) have worked together since early 2019 to develop the proposed amendments.

A subcommittee was also organized and met numerous times to help further develop regulations.
DEP respectfully requests that the Board adopt this proposed rulemaking for publication in the Pennsylvania Bulletin with a 30-day public comment period.
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