

Radiology Compliance Branch
RADIATION PROTECTION SECTION



Division of Health Service Regulation • N.C. Department of Health and Human Services

CAUTION SIGNS

Rule .1623 CAUTION SIGNS

- (a) *Unless otherwise authorized by the agency,*
- (1) *The standard three blade symbol and interior circle design shall be magenta, purple or black; and*
 - (2) *The background shall be yellow*

The use of ANY other color combination without **PRIOR** written approval from the agency is in violation of this regulation. The background shall **not** be white or any other color intended to “blend” with the facility’s ergonomic plan. It is also **not** acceptable to switch the background and design colors such that the standard three blades and interior circle are yellow with a background of magenta, purple or black.

POSTING REQUIREMENTS

Rule .1624 POSTING REQUIREMENTS

*The licensee or registrant shall post each radiation area with a conspicuous sign or signs bearing the radiation symbol and the words in the following areas, as defined in **Rule .0104**, shall be posted with a **conspicuous** sign or signs bearing the radiation symbols **and** the words:*

- (a) CAUTION
RADIATION AREA
- (b) CAUTION (OR DANGER)
HIGH RADIATION AREA
- (c) GRAVE DANGER
VERY HIGH RADIATION AREA

It is permissible to post additional signs in Spanish if the exact translation is used. Alternate wording does **not** meet the requirement of the rule and is a violation. For example, using either CAUTION or DANGER interchangeably is acceptable for a HIGH RADIATION AREA but not for a RADIATION AREA. It is also **not** acceptable to use the symbol without the words and vice versa.

What is **conspicuous**? Something that is conspicuous should attract attention **and** be obvious to the eye. This means that **EACH** access point to one of the above-mentioned areas shall have signs that meet the requirements of **Rules .1623 and .1624** posted where they will catch the attention or eye of anyone entering the room from any angle. They do not have to be stuck in the middle of the door, but they must be otherwise conspicuous. Signs are not conspicuous if they blend in with the environment.

Rule .0104 DEFINITIONS

- (109) "Radiation area" means an area, accessible to individuals, in which radiation levels could result in an individual receiving a dose equivalent in excess of 0.005 rem (0.05 mSv) in one hour at 30 centimeters from the radiation source or from any surface that the radiation penetrates.
- (61) "High radiation area" means an area, accessible to individuals, in which radiation levels from sources external to the body could result in an individual receiving a dose equivalent in excess of 0.1 rem (1 mSv) in one hour at 30 centimeters from the radiation source or from any surface that the radiation penetrates.
- (156) "Very high radiation area" means an area, accessible to individuals, in which radiation levels from sources external to the body could result in an individual receiving an absorbed dose in excess of 500 rads (5 grays) in one hour at one meter from a radiation source or from any surface that the radiation penetrates. At very high doses received at high dose rates, units of absorbed dose (e.g., rads and grays) are appropriate, rather than units of dose equivalent (e.g., rems and sieverts).

It is the **responsibility** of the facility to determine whether it meets the requirements for posting. Present documentation of the basis for such decisions to the inspector during the inspection. If an inspector suspects that an area might require posting, the facility should be prepared to defend its position for not posting.

EXEMPTIONS TO SIGNS AND POSTINGS

Rule .0108 (a)

- (1) *The agency may, by license condition, registration condition, or order, when not in conflict with any law, waive any requirement in these Rules or impose additional requirements in accordance with 46 FR 7450 as it deems appropriate or necessary to minimize danger to public health, safety or property.*

The first thing to note is the language. This is not a rule guaranteeing a waiver request will receive approval. In order for consideration of a waiver, the circumstances **shall** be such that the waiver is appropriate or necessary to minimize danger to public health, safety or property.

It is the **responsibility** of the facility to make the determination and present to the Radiology Compliance Branch that the implementation of a Rule, as codified, somehow presents increased danger to public health, safety or property.

Cost and convenience are not acceptable reasons for a facility to receive a waiver from a posting requirement.

When submitting waiver requests, the facility should also provide the agency with a detailed alternate plan for dealing with the hazard.