



STATE OF ALABAMA DEPARTMENT OF
PUBLIC HEALTH

Donald E. Williamson, MD
State Health Officer

June 9, 2014

MEMORANDUM

TO: Staff of Radiation Control

FROM: Karl D. Walter, Director *KDW*
Office of Radiation Control

SUBJECT: Procedures for Granting Exceptions to Rule 420-3-26-.06(3)(f)5. to Permit the Use of a Portable X-Ray Unit as a Fixed Installation Under Certain Conditions

On March 13, 1996, Dr. Donald E. Williamson granted an exception to the Division of Tuberculosis Control to use portable x-ray units at certain County Health Departments as fixed units, meaning that patients are brought to the machine, instead of in a strict sense, the machine being taken to the patient.

Prior to granting this exception, Dr. Williamson agreed to certain conditions and restrictions that must be met before such a request for exception will be considered. The attached guide details those conditions and will be used by the Staff of the Office of Radiation Control in reviewing applications for exception to the subject rule. The guide should be given to anyone inquiring about such use of x-ray equipment.

KDW/mwf

Attachment

GUIDE FOR GRANTING EXCEPTIONS TO RULE 420-3-26-.06(3)(f)5. PORTABLE
X-RAY UNITS USED AS FIXED UNITS

Introduction

Rule 420-3-26-.06(3)(f)5. of Alabama Rules for Radiation Control States:

“Portable or mobile x-ray equipment shall be used only for examinations where it is impractical to transfer the patient to a stationary radiographic installation.”

The key word in the above rule that allows interpretation of the intent of the rule is “impractical.”

Portable x-ray equipment was designed and intended to be used in situations where it was impractical for a patient to be taken to a fixed x-ray installation. This guide does not address this intended and recognized use of portable x-ray equipment.

This guide does address those certain situations where for prescribed reasons it is determined that the use of portable equipment, as a fixed installation, is practical.

The use of portable x-ray equipment as a fixed installation requires that an application for an exception to Rule 420-3-26-.06(3)(f)5. be submitted and approved. This guide provides information needed by the Agency to evaluate such an application.

Contents of Request for Exception to Rule

In considering whether or not it is practical to use portable x-ray equipment as fixed x-ray equipment (permanent installation), the application should clearly address the following questions:

1. It is necessary to provide x-ray services to the population planned to be served? A clear explanation of why x-rays are necessary for this population must be submitted.
2. Why is it necessary to use portable x-ray equipment to provide x-ray service? Why is it impractical to transfer patients to a fixed installation?
3. What alternatives to the use of portable x-ray equipment are available? Why is the use of these alternatives impractical?
4. Does the use of portable x-ray equipment provide a service which is needed and which is most practical considering other alternatives? Why?

Information which will enable the Agency to make a determination of the risks associated with the application must also be included. Submitted information should include at minimum:

1. Copies of a physicist's survey which indicates that the portable x-ray equipment meets all requirements of Alabama Radiation Protection Rules.
2. Entrance skin exposures (ESE's) for each procedure to be performed including copies of technique charts used. Note that ESE's must be within 10% of the average ranges recommended by the Agency.
3. A letter from a physician who will read the films indicating that films made using techniques to be used for studies are acceptable for determining proper diagnosis.

An evaluation of each facility in which x-rays will be taken must be made by the Agency. Information as follows must be submitted for review:

1. As scaled drawing of the room in which x-rays will be taken. A single room must be designated for x-ray. Location of x-ray equipment, cassettes, shields, doors, film storage, and table must be clearly indicated on the drawing.
2. Copies of a physicists' evaluation of shielding requirements verses actual construction plans must be submitted for review.
3. A booth/shield for the operator to stand behind when making exposures must be included in the plans. It is important to remember that this is a portable unit being used as a fixed unit.
4. The scaled drawing must include a darkroom, if one is planned. If no darkroom is planned, then a discussion of how and where exposed films will be developed must be included.
5. Information regarding how non-processed film will be protected from unwanted radiation exposure and light must be included.

In addition, information related to the following must be submitted for review:

1. Training and experience of all operators.
2. Exposure technique charts which will be used for all examinations.
3. A description of films/screens/grids to be used.
4. A description of personnel monitoring devices to be used by each operator. Monthly monitoring service will be required.

5. A description of the film processing system to be used including quality control procedures for time, temperature, and chemistry.
6. Note that depending upon each proposal, additional information may be needed for proper evaluation.

Upon receipt of the above information the Office of Radiation Control Staff will make an evaluation of the request for exception to Rule 420-3-26-.06(3)(f)5. That evaluation with Staff recommendations will be forwarded to the State Health Officer for his consideration. The applicant will be notified of final determination of the request.

Approved

Date of Approval