Minnesota Department of Health Radiation Control, X-ray Unit

ALARA

As Low As Reasonably Achievable (ALARA) (4732.0530)

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Every reasonable effort should be made to maintain radiation exposures as low as is reasonably achievable (ALARA). You are required to consider the ALARA philosophy in establishing your radiation safety and quality assurance program involving the use of your facilities x-ray equipment.

A typical ALARA program may include:

- Commitment from management and staff
- Implement procedures for holding the patient or image receptor
- The manufacturer's instructions on the proper use of image receptor holding devices
- The manufacturer's instructions for proper image development
- Implementing site specific radiation safety procedures
- Implementing site specific quality control procedures

Operating and emergency procedures must be developed, implemented, and maintained to ensure that x-ray equipment is used only as designed, control and accountability are maintained, and radiation doses received by occupational workers and members of the public are ALARA and below the regulatory dose limits.

The success of an ALARA program depends on the cooperation of each person at your facility. Management should make a formal policy commitment to the ALARA philosophy and implement that commitment with adequate resources. You may include the text as it appears here or if you prefer or you may develop your own ALARA (As Low as Reasonably Achievable) program for MDH review at the time of an inspection.

Management Commitment

- We, the management of this facility, are committed to the program described herein for keeping individual and collective doses As Low as Reasonably Achievable (ALARA). In accord with this commitment, we hereby describe an administrative organization for radiation safety and will develop the necessary written policy, procedures, and instructions to foster the ALARA concept within our institution. The organization will include a radiation safety officer.
- We will perform a formal annual review of the radiation safety program, including ALARA considerations. This will include reviews of operating procedures, past dose records (if applicable), inspections, etc., and any modifications to operating and maintenance procedures or to x-ray equipment and facilities will be reviewed and include consultations with the radiation safety staff or outside consultants.
- In addition to maintaining doses to individuals as far below the limits as is reasonably achievable, the sum of the doses received by all exposed individuals will also be maintained at the lowest practicable level.

Registrant's Responsibility to Supervised Individuals

- Registrants will explain the ALARA concept and the need to maintain exposures as low as reasonably achievable to all staff.
- Registrants will ensure that the supervised individuals who are subject to
 occupational radiation exposure are trained and educated in safe radiation
 practices involving time, distance, shielding, and appropriate techniques in
 maintaining exposures.
- Registrants will ensure staffs that are subject to occupational radiation exposure are trained and educated in practices involving time, distance, shielding and appropriate techniques in maintaining exposures ALARA.

