

APPENDIX A

ALARA PROGRAM

I. THE ALARA PHILOSOPHY

The Rules and Regulations for Control of Sources of Ionizing Radiation, Paragraph RH-1004, "Radiation Protection Programs" requires the use, to the extent practical, of procedures and engineering controls based upon sound radiation protection principles to achieve occupational and public doses that are As Low As Reasonably Achievable (ALARA). The primary concept of the ALARA philosophy is that unnecessary exposure to radiation should be avoided, even though current occupational dose limits provide a very low risk of injury.

The objective is to reduce occupational radiation dose (both individual and collective) as far below regulatory limits as is reasonably achievable by means of good radiation protection planning and practice, as well as by a management commitment to policies that deter departures from good practices.

The three primary methods of minimizing exposure to radiation are: TIME, DISTANCE and SHIELDING. When working with sources of radiation, always minimize the TIME, maximize the DISTANCE, and make use of available SHIELDING to keep dose ALARA.

II. MANAGEMENT COMMITMENT

Management is committed to the ALARA philosophy of maintaining occupational and public radiation doses as low as reasonably achievable.

- A. All personnel using radioactive material will be made aware of our commitment to the ALARA philosophy and they will be instructed in the procedures necessary to keep their radiation dose as low as possible.
- B. The RSO will be delegated authority to ensure adherence to ALARA principles. Management will support the RSO in instances where this authority must be asserted.
- C. All reasonable modifications will be made to procedures, equipment and facilities to reduce radiation dose, unless the cost is considered to be unjustified. Management will be prepared to describe the reasons for not implementing modifications that have been recommended.

III. RADIATION SAFETY OFFICER RESPONSIBILITIES

- A. The RSO will emphasize the ALARA philosophy to workers, instruct personnel on current procedures and provide guidance on relevant changes to reduce radiation dose.
- B. The RSO will review dosimetry reports for all monitored personnel to determine if unnecessary dose is being received. The RSO will establish written investigational personnel dose limits and investigate within 30 days the cause of any personnel radiation dose greater than the established limit. If warranted, the RSO will take corrective actions to ensure that unnecessary exposures are halted and recurrence is prevented. A report of each investigation and the actions taken, if any, will be recorded and maintained for inspection purposes.

- C.** At least annually, the RSO will insure that a formal review of the radiation protection program's content and implementation, as required by Paragraph RH-1004, "Radiation Protection Programs" is performed. The review will include an evaluation of equipment, procedures, dosimetry records, inspection findings, and incidents. The RSO will assess trends in occupational exposures as an index of the program's success and determine if any modifications to the program are needed. A summary of the results of each annual review, including a description of actions proposed and taken (if any) will be documented by the RSO, discussed with management, and signed and dated by both. A report on each audit will be maintained on file for 3 years from the date of the review.
- D.** The RSO will provide written notifications of annual radiation dose to all monitored personnel as required by Paragraph RH-2804, "Notifications and Reports to Individuals", and will be available to respond to any questions regarding the dose reports.
- E.** Other typical duties of the RSO are described in Appendix C-2.