

# RUST FEDERAL SERVICES

Nuclear Remedial Services

## Procedure Title/Approval

NUCLEAR REMEDIAL SERVICES ALARA PROCEDURE

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## 1.0 SCOPE

### 1.1 Purpose

The purpose of this document is to:

1.1.1 State the procedure which RUST Federal Services, Nuclear Remedial Services (RFS/NRS) enacts towards maintaining occupational radiation exposures as low as reasonably achievable (ALARA) for all RFS/NRS employees.

1.1.2 To describe the implementation of this procedure through the ALARA Review Committee.

### 1.2 Applicability

This procedure applies to the work of all RFS/NRS employees, to the design of facilities and equipment, to planning of radiation protection, and to the review of operational practices that result, or have the potential for resulting in radiation exposure to personnel.

### 1.3 Statement of Policy

The policy of RFS/NRS is to make every reasonable effort to maintain radiation exposures as low as reasonably achievable (ALARA) as delineated in Reference 2.1, 2.2, 2.3 and 2.4.

## 2.0 REFERENCES

2.1 10 CFR 20 Standards for Protection Against Radiation

2.2 NRC Regulatory Guide 8.10 "Operating Philosophy for Maintaining Occupational Radiation Exposure As Low As Reasonably Achievable"

2.3 Applicable State, DOE, and DOD rules and regulations

2.4 NRC Regulatory Guide 8.8 "Information Relevant to Ensuring That Occupational Radiation Exposures at Nuclear Power Stations Will Be As Low As Reasonably Achievable"

2.5 NRS-AD-007, "Nuclear Remedial Services Health Physics Policy Manual"

2.6 ANSI N237-1976, "American National Standard: Source Term Specification"

2.7 NRS-AD-018, "Radiation Exposure Records Procedure"

2.8 NRS-RP-021, "Procedure for the Implementation of USNRC License Number 39-25250-01"

2.9 NRS-AD-002 "Records Management Procedure"

### 3.0 REQUIREMENTS

#### 3.1 Prerequisites

3.1.1 The ALARA Review Committee (ARC) shall be constituted to implement the RFS/NRS ALARA Policy. The ARC shall consist of personnel who are experienced and knowledgeable in health physics principles, practices, and procedures; and who are familiar with those design features and operations of nuclear power stations and waste handling equipment which affect the potential for exposures of personnel to radiation.

3.1.2 The personnel listed in Appendix A, form the ARC:

3.1.2.1 The ALARA Review Committee may recommend the addition of qualified individuals to the ARC.

3.1.2.2 The Division Health Physicist (DHP) shall function as Chairperson. He may designate another member of the ARC to act as chairperson in his absence.

3.1.2.3 A quorum of the ARC is defined as the Chairperson, or his designee, and one other member of the ARC. The ARC shall meet twice a year at a minimum.

#### 3.2 Review Criteria

At least one member of the ARC shall review procedures, programs, policies, equipment and facility design (new and existing), and design changes in light of the RFS/NRS Administrative limits for Radiation Exposure given in Reference 2.5.

### 3.3 Required Reviews

#### 3.3.1 Procedures

Any document involving radiation safety should first be approved by a member of the ARC. All procedures shall be approved by a member of the ARC. Work Instructions and Plans shall be reviewed by a member of the ARC as required by Quality Assurance. Quality Assurance may require review of other documents.

#### 3.3.2 Designs

Designs or design changes for facilities or equipment which may cause radiation exposure should be reviewed by a member of the ARC prior to fabrication, construction, or procurement. The design shall be approved by a member of the ARC before the facility or equipment is released for use.

#### 3.3.3 Radiation Protection Programs

Radiation protection programs developed for implementation by RFS-NRS personnel at non-RFS/NRS facilities shall be reviewed by a member of the ARC.

#### 3.3.4 Implementation of RFS USNRC License

Prior to implementation of the RFS USNRC license number 39-25250-01, the ARC shall meet as required by reference 2.8 to ensure the appropriate documentation is complete.

### 4.0 DETAILED PROCEDURE

#### 4.1 Responsibilities

##### 4.1.1 ALARA Review Committee Members

The members of the ALARA Review Committee are responsible for:

4.1.1.1 Participating in design reviews for procedures, facilities, and equipment that can affect potential radiation exposures and, as required, making recommendations to the ALARA Review Committee.

4.1.1.2 Documenting actions taken as ARC members and reporting those actions to the ARC Chairperson.

- 4.1.1.3 Assisting in prescribing goals and objectives to be achieved in the Radiation Protection Program.
- 4.1.1.4 Assisting in reviews of the exposure control program for RFS/NRS.
- 4.1.1.5 Assisting in performing periodic audits and inspections to determine compliance with the ALARA policy in work activities and reporting non-compliance to the Division Health Physicist.
- 4.1.1.6 Assisting in reviewing data and information obtained from radiological surveys and monitoring activities to determine compliance to ALARA policy.
- 4.1.1.7 Assisting in developing plans, procedures, and methods for keeping exposures of RFS/NRS personnel ALARA.
- 4.1.1.8 Assisting in the reviews of training programs related to work in radiation areas or involving radioactive materials.
- 4.1.1.9 Assisting in the review of exposure records to develop methods to reduce exposures.
- 4.1.1.10 Assisting in the review of the supervision, training, and qualifications of the radiation protection staff in all RFS/NRS operations.

#### 4.1.2 Division Health Physicist

The Division Health Physicist (DHP) is responsible for maintaining an operational overview of all RFS/NRS operations involving exposure to or handling of radioactive materials. He functions as chairperson of the ALARA Review Committee. His responsibilities include:

- 4.1.2.1 Directing an annual appraisal of the Radiation Protection Program for all RFS/NRS employees.
- 4.1.2.2 Directing an annual appraisal of the exposure control program for all RFS/NRS employees.

- 4.1.2.3 Coordinating the development of plans, exposure goals, procedures, and methods for keeping radiation exposures for all RFS/NRS employees ALARA.
- 4.1.2.4 Reporting actions of the ARC to affected facility management, where appropriate.
- 4.1.2.5 Serve as Radiation Safety Officer for the RFS USNRC license number 39-25250-01.

#### 4.1.3 Radiological Control Supervisor

The Radiological Control Supervisor (RCS) is responsible for implementation of the Radiation Protection Program at the facility to which they are assigned. The Radiological Control Supervisor may have various titles (e.g. Health Physics Manager, Radiation Safety Officer). These responsibilities include:

- 4.1.3.1 Ensuring adequate radiation protection coverage is provided for all personnel during working hours.
- 4.1.3.2 Supervising, training, and documenting the training of the radiation protection staff under their supervision.
- 4.1.3.3 Identifying locations, operations, and conditions having the potential for causing significant exposures to radiation.
- 4.1.3.4 Implementing the RFS/NRS exposure control program (See Reference 2.5 and 2.7).
- 4.1.3.5 Reviewing, commenting on, and recommending changes in equipment or in procedures to maintain occupational exposures ALARA.
- 4.1.3.6 Participating in the development and approval of training programs related to work in radiation areas or involving radioactive materials.
- 4.1.3.7 Supervising the collection, analysis, and evaluation of data and information obtained from radiological surveys and monitoring activities.
- 4.1.3.8 Reporting to the DHP on the Radiation Protection Program in effect at the facility to which he/she is assigned.



#### 4.1.4 Responsibilities of Individual Managers

Managers of individual departments shall be responsible for ensuring that criteria affecting potential radiation exposure and contamination are considered in the design operation, and construction of facilities and equipment. Managers shall assure that designers and engineers consider the standards delineated in References 2.4 and 2.6 in order to design facilities and equipment that shall assist in maintaining exposures to radiation ALARA. Managers of individual departments at RFS/NRS facilities bear responsibility for:

- 4.1.4.1 Ensuring adherence to the RFS/NRS Radiation Protection Program by all of their personnel.
- 4.1.4.2 Specifying goals and objectives for their operations that incorporate the objectives of the Radiation Protection Program.
- 4.1.4.3 Identifying locations, operations, and conditions having the potential for causing significant exposures to ionizing radiation.
- 4.1.4.4 Assuring ALARA reviews are performed on procedures, program, policies, equipment facility design (new and existing), and equipment changes as required by this policy.

#### 4.1.5 Individual RFS/NRS Employees

- 4.1.5.1 Each individual who performs a work assignment for RFS/NRS and becomes subject to the policies in the Radiation Protection Program is responsible for complying with RFS/NRS policy as set forth in operating procedures.
- 4.1.5.2 Any RFS/NRS employee may attend and be heard at an ARC meeting. Such attendance shall be arranged by notifying the Chairperson or any member of the ARC to assure adequate time and company representation is allotted for addressing the employee's suggestions, questions, or problems.

#### 4.2 Procedure Review

- 4.2.1 The preparer of the document shall submit the document to a member of the ARC.
- 4.2.2 The ARC member shall review the document and may suggest changes.
- 4.2.3 When the document meets the approval of the ARC member, the ARC member shall sign "ALARA" block on the cover page of the document.

#### 4.3 Design Review

- 4.3.1 The cognizant group seeking approval of the design or design change shall arrange a review meeting with a member of the ARC. At least one reviewer shall be a radiological engineer.
- 4.3.2 The cognizant group shall present the design, purpose, and radiation safety hazards.
- 4.3.3 The ARC member may suggest changes to the design or ask for additional assistance from the cognizant personnel.
- 4.3.4 The cognizant group shall prepare a memo to ARC Chairperson documenting the meeting and suggested changes.
- 4.3.5 The ARC member who attended the meeting shall review the memo and if acceptable, shall sign indicating approval prior to transmittal to the Chairperson. If the original member is not available arrangements should be made with the Chairperson to contact the original member (or designee) for their comment.

#### 4.4 Program Reviews

- 4.4.1 The operating group intending to implement a radiation protection program at a non-RFS/NRS facility should prepare a plan for radiation protection based on currently approved procedures.
- 4.4.2 The operating group shall present the plan to the Chairperson or designee of the ARC in writing or orally at a review meeting.
- 4.4.3 The Chairperson or designee may suggest changes to the plan, and may require the development of job specific radiation control procedures.

- 4.4.4 If the original plan was presented in writing, the final corrected plan shall be submitted to the Chairperson or designee, signed indicating approval and a copy returned to the operating group prior to the dispatch of personnel or equipment to the job site.
- 4.4.5 If the plan was presented orally, the operating group shall document the review meeting and any suggested or required changes by memo to the person or designee.
- 4.4.6 The Chairperson or designee shall approve the review meeting memo by signature and return a copy to the operating group prior to the dispatch of personnel or equipment to the job site.

#### 4.5 Conflict Resolution

- 4.5.1 The group requesting approval of a procedure, design, or plan that can not reach agreement with the reviewing ARC member may request a review by the Chairperson, or ARC, if the Chairperson is the reviewing ARC member.
- 4.5.2 Upon review of the procedure, design, or plan, and discussion with the reviewing ARC member, the Chairperson, or ARC, may approve the procedure, design, or plan, or may require changes.
- 4.5.3 Approval shall be documented by memo from the ARC to the requesting group signed by the Chairperson.
- 4.5.4 The group requesting approval may appeal the decision of the ARC to the Director Health and Safety by requesting in writing a review of the decision.
- 4.5.5 The Director Health and Safety shall issue a decision in writing to the requesting group.

#### 4.6 Suggestions

- 4.6.1 All RFS/NRS employees are encouraged to make suggestions for improvements to keep radiation doses ALARA.
- 4.6.2 Suggestions shall be in writing and sent to the Chairperson for review by the ARC.

5.0 RECORDS

- 5.1 The Chairperson or designee of the ARC shall document all ARC meetings.
- 5.2 The Chairperson or designee of the ARC shall document the annual appraisal of the Radiation Protection Program and exposure control program.
- 5.3 The Chairperson or designee shall maintain all ARC records readily retrievable for a period of at least 2 years.
- 5.4 After the minimum retention period has passed, the Chairperson shall submit the ARC records to RFS/NRS Records Management for permanent storage in accordance with Reference 2.9.

APPENDIX A  
ALARA REVIEW COMMITTEE  
(2 PAGES)

ALARA REVIEW COMMITTEE

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