

REVISIONS				
SRB APPROVAL	REV.	DESCRIPTION	DATE	APPROVED
	A	CHANGES PER CHANGE REQUEST CN-AD-019-01	8/30/83	<i>[Signature]</i>
<i>[Signature]</i>	B	CHANGES PER CHANGE REQUEST CN-AD-019-02	8/28/85	<i>[Signature]</i>

This procedure is current at the time of submittal. Changes may be made during the effective licensing period. Changes which involve significant safety aspects of the activities authorized by the license will be formally submitted. All changes to procedures are approved by the Chem-Nuclear Safety Review Board before implementation.

CNSI SAFETY REVIEW
BOARD APPROVAL

BY *[Signature]*
DATE 8/27/85

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REVISION STATUS

SHEET	1	2	3	4	5	6	7	8	9	10						
REV.	B	B	B	B	B	B	B	B	B	B						
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PREPARED <i>[Signature]</i>	DATE 12/21/79	<p align="center">CHEM – NUCLEAR SYSTEMS, INC.</p> <p align="center">CHEM-NUCLEAR SYSTEMS, INC. (CNSI) ALARA POLICY</p>			
CHECKED <i>[Signature]</i>	1/18/80				
ENGINEER <i>[Signature]</i>	1/18/80				
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1.0 SCOPE

1.1 Purpose

The purpose of this document is to:

1.1.1 State the policy of Chem-Nuclear Systems, Inc. (CNSI) with regard to maintaining occupational radiation exposures as low as reasonably achievable (ALARA) for all CNSI employees.

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

1.2 Applicability

This policy applies to the work of all CNSI 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 CNSI is to make every reasonable effort to maintain radiation exposures as low as reasonably achievable (ALARA) as delineated in Reference 2.1, U. S. NRC Title 10 Code of Federal Regulations 20.1 (c) and Reference 2.2, NRC Regulatory Guide 8.10. In addition, Reference 2.3, NRC Regulatory Guide 8.8 will be applied to the design, construction, and use of equipment intended for operation at nuclear power stations.

2.0 REFERENCES

2.1 10 CFR 20.1 (c)

2.2 NRC Regulatory Guide 8.10

2.3 NRC Regulatory Guide 8.8

2.4 CNSI Procedure, CN-AD-020, "Chem-Nuclear (CNSI) Health Physics Policy Manual"

2.5 ANSI N237-1976

2.6 CNSI Procedure, CN-AD-026, "Radiation Exposure Records and Procedures."

3.0 REQUIREMENTS

3.1 Prerequisites

The ALARA Review Committee (ARC) will be constituted to implement the CNSI 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.

The personnel listed below form the ARC:

- 3.1.1 Vice President, Regulatory Affairs
- 3.1.2 Corporate Health Physicist
- 3.1.3 Director, Regulatory Affairs
- 3.1.4 Director, Licensing
- 3.1.5 Director, Quality Assurance
- 3.1.6 Manager, Health Physics (Barnwell)

The ALARA Review Committee may recommend that the Safety Review Board approve the addition of qualified individuals to the ARC.

The Corporate Health Physicist will function as Chairperson. He may designate another member of the ARC to act as chairperson in his absence.

A quorum of the ARC is defined as the Chairman, or his designee, and one other member of the ARC. A quorum is required for ARC decisions.

3.2 Review Criteria

Members of the ARC will review procedures, programs, policies, equipment and facility design (new and existing), and design changes in light of the CNSI Administrative limits for Radiation Exposure given in Reference 2.4.

3.3 Required Reviews

3.3.1 Procedures

Any document involving radiation safety which is presented to the SRB for approval shall first be approved by a member of the ARC.

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 CNSI personnel at non-CNSI facilities shall be reviewed by the chairperson of the ARC.

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 Assisting in prescribing goals and objectives to be achieved in the Radiation Protection Program.
- 4.1.1.3 Assisting in reviews of the exposure control program for CNSI.
- 4.1.1.4 Assisting in performing periodic audits and inspections to determine compliance with the ALARA policy in work activities and reporting non-compliance to the Vice President, Regulatory Affairs.
- 4.1.1.5 Assisting in reviewing data and information obtained from radiological surveys and monitoring activities to determine compliance to ALARA policy.
- 4.1.1.6 Assisting in developing plans, procedures, and methods for keeping exposures of CNSI personnel ALARA.
- 4.1.1.7 Assisting in the reviews of training programs related to work in radiation areas or involving radioactive materials.

- 4.1.1.8 Assisting in the review of exposure records to develop methods to reduce exposures.
- 4.1.1.9 Assisting in the review of the supervision, training, and qualifications of the radiation protection staff in all CNSI operations.

4.1.2 Corporate Health Physicist

The Corporate Health Physicist is responsible for maintaining an operational overview of all CNSI operations involving exposure to or handling of radioactive materials. He functions as chairman of the ALARA Review Committee. His responsibilities include:

- 4.1.2.1 Directing an annual appraisal of the Radiation Protection Program for all CNSI employees.
- 4.1.2.2 Directing an annual appraisal of the exposure control program for all CNSI employees.
- 4.1.2.3 Coordinating the development of plans, exposure goals, procedures, and methods for keeping radiation exposures for all CNSI employees as low as reasonably achievable.
- 4.1.2.4 Reporting actions of the ARC to the SRB, where appropriate.

4.1.3 Manager, Health Physics

Health Physics Manager(s) are responsible for implementation of the Radiation Protection Program at the facility to which they are assigned. For CNSI operations at non-CNSI facilities for which CNSI is directing the Radiation Protection Program, a CNSI qualified senior health physics technician may be assigned the responsibilities of the H.P. Manager by an appropriate authority. 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 his 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 CNSI exposure control program (Reference 2.4).
- 4.1.3.5 Implementing the CNSI exposure records program (Reference 2.6).
- 4.1.3.6 Reviewing, commenting on, and recommending changes in equipment or in procedures to maintain occupational exposures ALARA.
- 4.1.3.7 Participating in the development and approval of training programs related to work in radiation areas or involving radioactive materials.
- 4.1.3.8 Supervising the collection, analysis, and evaluation of data and information obtained from radiological surveys and monitoring activities.
- 4.1.3.9 Reporting to the Corporate Health Physicist (or RSO if not the Corporate H.P.) on the Radiation Protection Program in effect at the site to which he/she is assigned.

4.1.4 Responsibilities of Individual Managers

Managers of individual departments at CNSI bear responsibility for:

- 4.1.4.1 Ensuring adherence to the CNSI 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 Expediting the collection and dissemination of data and information to corporate management concerning personnel radiation exposures in their operations.
- 4.1.4.4 Identifying locations, operations, and conditions having the potential for causing significant exposures to radiation.
- 4.1.4.5 Assuring ALARA reviews are performed on procedures, program, policies, equipment facility design (new and existing), and equipment changes as required by this policy.

Managers of individual departments will be responsible for ensuring that criteria affecting potential radiation exposure and contamination are considered in the design operation, and construction of facilities and equipment. They will assure that designers and engineers consider the standards delineated in references 2.3 and 2.5 in order to design facilities and equipment that will assist in maintaining exposures to radiation as low as reasonably achievable.

4.1.5 Individual CNSI Employees

Each individual who performs a work assignment for CNSI and becomes subject to the policies in the Radiation Protection Program is responsible for complying with CNSI policy as set forth in operating procedures.

Any CNSI employee may attend and be heard at an ALARA Committee meeting. Such attendance must be arranged by notifying the Chairman or any member of the ALARA Committee 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.
- 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.
- 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.

4.4 Program Reviews

- 4.4.1 The operating group intending to implement a radiation protection program at a non-CNSI facility shall prepare a plan for radiation protection based on currently approved procedures.
- 4.4.2 The operating group shall present the plan to the Chairperson of the ARC in writing or orally at a review meeting.
- 4.4.3 The Chairperson may suggest changes to the plan, and may require the development of additional 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, 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 Chairman.
- 4.4.6 The Chairman 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 of the procedure, design, or plan, or may require changes.
- 4.5.3 Approval will be documented by memo from the ARC the requesting group signed by the Chairperson.
- 4.5.4 The group requesting approval may appeal the decision of the ARC to the Vice-President, Regulatory Affairs, by requesting in writing a review of the decision.

4.5.5 The Vice-President, Regulatory Affairs acting as Chairman of the SRB shall issue a decision in writing to the requesting group.

4.5.6 The group requesting approval may appeal the decision of the Vice-President, Regulatory Affairs to the President by requesting in writing a review of the decision.

4.5.7 The President shall issue a decision in writing to the requesting group.

4.6 Suggestions

4.6.1 All Chem-Nuclear employees are encouraged to make suggestions for improvements to ALARA.

4.6.2 Suggestions shall be in writing and sent to the Chairperson for review by the ARC.

RECORDS

5.1 The Chairperson of the ARC shall document all ARC meetings.

5.2 The Chairperson of the ARC shall document the annual appraisal of the Radiation Protection Program and exposure control program.

5.3 The Chairperson 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 will transmit the ARC records to CNSI Document Control for permanent storage.

REVISIONS				
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<i>[Signature]</i>	B	CHANGES PER CHANGE REQUEST CN-AD-020-02	7/14/83	<i>[Signature]</i>
<i>[Signature]</i>	C	CHANGES PER CHANGE REQUEST CN-AD-020-03	2/21/85	<i>[Signature]</i>
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BY

DATE

2/13/80

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SHEET	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
REV.	D	D	D	D	D	D	D	D	D	D	D	D	D	D	C	C	D
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REV.	D	D															

PREPARED <i>McJury</i>	DATE <i>12/21/79</i>	CHEM — NUCLEAR SYSTEMS, INC. TITLE 8512050044 851021 REG2 LIC30 39-23004-02 PDR CHEM-NUCLEAR SYSTEMS (CNSI) HEALTH PHYSICS POLICY MANUAL			
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ENGINEER <i>[Signature]</i>	<i>1-31-80</i>				
QUALITY <i>B. Lewis</i>	<i>2/6/80</i>				
APPROVED <i>[Signature]</i>	<i>2/6/80</i>	CONTRACT NO.	DOCUMENT NO. CN-AD-020	REV. -D	SHEET 1