

REVISIONS				
SRB APPROVAL	REV.	DESCRIPTION	DATE	APPROVED

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

W. J. Hubbard

DATE

8/27/85

REVISION STATUS

SHEET	1	2	3	4	5	6											
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PREPARED <i>M. J. White</i>	DATE <i>8/1/85</i>	CHEM - NUCLEAR SYSTEMS, INC.	
ALARA <i>J. H. Hays</i>	DATE <i>8/2/85</i>	TITLE RADIATION EXPOSURE RECORDS AND PROCEDURES 8512050050 851021 REG2 LIC30 39-23004-02 PDR	
ENGINEER <i>W. H. Rice</i>	DATE <i>8/2/85</i>		
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1.0 SCOPE

1.1 Purpose

Chem-Nuclear Systems, Inc. (CNSI) provides a variety of services to the nuclear industry such as radioactive waste packaging, transportation, and disposal; decontamination of areas and equipment; solidification and demineralization of waste streams and health physics coverage for reactor outages. All of these activities are licensed and regulated by the Nuclear Regulatory Commission (NRC) and/or an agency of state government. The conduct of the activities by CNSI requires that the radiation exposure received by employees in pursuing these activities shall be controlled and documented. It is the purpose of this procedure to detail the methods by which such exposures shall be controlled and documented in accordance with References 2.1 and 2.2.

1.2 Applicability

Procedures set forth in this document shall apply to all CNSI employees and other persons (e.g. visitors) who enter radiation areas.

2.0 REFERENCES

- 2.1 Title 10, Code of the Federal Regulations, Part 19 & 20, Sections 19.13, 20.101, 20.102, 20.401, 20.404, 20.405, 20.408 & 20.409.
- 2.2 State of South Carolina, Department of Health and Environmental Control, Regulation 61-63, Radioactive Materials RHA 3.2, 3.6, 3.19, and 6.4.

3.0 REQUIREMENTS

None.

4.0 DETAILED PROCEDURE

4.1 Exposure Records Technician (ERT)

The Exposure Records Technician shall be responsible for the following:

- 4.1.1 Issuance of all Thermoluminescent Dosimeters (TLD) to CNSI personnel and persons other than CNSI personnel who are routinely assigned to work in the controlled area.
- 4.1.2 Maintenance of all exposure records required by NRC and State Regulations.

- 4.1.3 Preparation of required form (NRC Form 4) for use by CNSI personnel in gaining access to a 10CFR50 or other licensed facility.

4.2 New Employee Records

- 4.2.1 All new CNSI employees are required to complete an "Address Sheet" which includes name, social security number, date of birth, job title, supervisor and all previous radiation exposure history. Records of previous radiation exposure history must be supplied by the individual or requested by the ERT from previous employer(s). All new employees must sign a CNSI request for previous exposure. All completed forms and records of any previous radiation exposure are placed in the individual employee's permanent radiation exposure history file.
- 4.2.2 Printed copies of Entrance and Exit Whole Body Counts are kept in each individual's file.

4.3 TLD Issuance and Records - Barnwell Site

- 4.3.1 TLD badges are assigned to all CNSI employees who are expected to enter or perform work in the controlled area when required by their job title or the Radiation Protection Officer (RPO).
- 4.3.2 TLD badges are assigned to persons other than CNSI employees who are routinely assigned to work in the controlled area.
- 4.3.3 All records of exposure from CNSI's "Dosimetry Report" and "Personnel/Vehicle Log" are kept on file.
- 4.3.4 Recorded readings of TLD badges are kept on file and entered on the computer monthly.

4.4 TLD Issuance and Records - Field Personnel

- 4.4.1 TLD badges are assigned to Field personnel who may be expected to enter or perform work in the controlled area at the Barnwell Site.
- 4.4.2 Personnel performing work at a 10CFR50 licensed facility shall not use CNSI TLD's except by authorization of the Dosimetry Department, acting for the Radiation Protection Officer (RPO), or if no monitoring device(s) is issued by the said client.
- 4.4.3 Personnel performing work at other than 10CFR50 licensed facilities shall obtain their issued TLD from

the Dosimetry Department. The issued TLD shall be returned to the Dosimetry Department when the job is completed or following work on the last day of each month - whichever comes first.

- 4.4.4 Upon completing work assignment or at the end of each week, whichever comes first, at a 10CFR50 licensed facility, each CNSI employee shall obtain a summation of pocket dosimeter results and telephone or telecopy these results to the ERT on the first working day of the following week.

CNSI employees shall sign a written request at the 10CFR50 licensed facility for the TLD exposure data to be sent to CNSI's Dosimetry Department as soon as it is available.

When completing an NRC Form 4 using pocket dosimeter results, the ERT shall note that the results recorded were calculated from pocket dosimeter results. Pocket dosimeter results shall be replaced with TLD results when they are received from the 10CFR licensed facility.

- 4.4.5 Exposure data received as set forth in 4.4.4 shall be entered in the computer by the ERT and updated NRC Form 4's will be prepared as required.
- 4.4.6 Prior to proceeding to 10CFR50 or other licensed facilities to perform work, each CNSI employee shall be provided with a copy of the form noted in 4.1.3 of this document. A copy of this completed form shall also be placed in the individual employee's permanent exposure history file.
- 4.4.7 Each CNSI employee shall report any errors in the completed NRC Form 4 to the ERT.

4.5 Visitors Records

- 4.5.1 All records of exposure received by visitors will be kept in the Dosimetry Department in the "Personnel/Vehicle Log" file and in the "Visitors Log Book", which is compiled of "Visitor Letters" completed by visitors upon arriving at CNSI. All radiation exposure received by the visitor at CNSI is recorded on this letter.

4.6 Lost TLD's and Pocket Dosimeters

- 4.6.1 A CNSI "Dosimeter Investigation" report is to be completed by the Health Physics Department and forwarded to the Dosimetry Department for lost TLD/pocket dosimeters. The report is to be signed by

the ERT and a copy is to be placed in the employee's exposure record file and in the "Lost TLD/Pocket Dosimeter" file. The original report is returned to the Health Physics Department.

- 4.6.2 After receiving the "Dosimeter Investigation" report, a replacement TLD is issued by the ERT. (Pocket Dosimeters are to be issued by th Health Physics Department.)
- 4.6.3 The pocket dosimeter results reported on the "Dosimeter Investigation" report are added to the employee's total recorded monthly exposure and are entered on the computer.