

SRB APPROVAL	REV.	DESCRIPTION	DATE	APPROVED

CNSI SAFETY REVIEW  
BOARD APPROVAL

BY W. Schumacher

DATE 3/20/84

REVISION STATUS

SHEET	1	2	3	4	5	6											
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PREPARED <u>W. Schumacher</u>	DATE <u>1/26/84</u>	CHEM - NUCLEAR SYSTEMS, INC.	
CHECKED <u>Edward H. Hines</u>	DATE <u>1-26-84</u>	TITLE	
ENGINEER <u>N/A</u>		AGNS SURVEILLANCE PROCEDURE	
QUALITY <u>W. Schumacher</u>	DATE <u>1/26/84</u>	<p>8405220013 840402 PDR ADOCK 05000332 P PDR</p>	
APPROVED <u>W. Schumacher</u>	DATE <u>1/27/84</u>	CONTRACT NO. <u>Safety</u>	DOCUMENT NO. <u>S20-AD-011</u>
		REV. <u>-</u>	SHEET <u>1</u>

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## 1.0 SCOPE

### 1.1 Purpose

To establish a common guide for a CNSI radiological surveillance program at the Allied General Nuclear Services (AGNS) facility.

### 1.2 Applicability

These procedures apply to all persons performing Health Physics functions in conjunction with the radiological surveillance service CNSI shall provide to AGNS.

## 2.0 REFERENCES

- 2.1 Title 10, Code of Federal Regulations, Part 20
- 2.2 State of South Carolina, Rules and Regulations for Radiation Control, Reg. 61-63, Title A
- 2.3 CNSI Procedure, CN-AD-019, "ALARA Policy"
- 2.4 CNSI Procedure, CN-AD-020, "Health Physics Policy"
- 2.5 CNSI Procedure, S20-RP-002, "Radiation/Contamination Control"
- 2.6 CNSI Procedure, S20-RP-013, "General Health Physics Requirements"
- 2.7 AGNS Surveillance Contract, Project #15014.
- 2.8 Rockwell International, "Report of Radiological Over View Survey for the Barnwell Nuclear Fuel Plant Decommissioning Project," ESG-83-48, 21 December 1983 (with maps).

## 3.0 RESPONSIBILITIES

### 3.1 CNSI Director, Regulatory Affairs/Barnwell

The CNSI Director, Regulatory Affairs/Barnwell is the designated Contract Radiological Safety Officer for AGNS. He will be responsible for coordinating with the South Carolina Department of Health and Environmental Control matters related to the AGNS "Possession Only License". He will have approval authority for AGNS operating procedures used under the Possession Only License. He or his designee will have entry authority to the property for inspection of the AGNS Facility for compliance to the Possession Only License.

### 3.2 CNSI Health Physics Supervisor

The CNSI Health Physics Supervisor is responsible for supplying Health Physics personnel, hardware, and/or supplies as needed to fulfill CNSI's contractual obligations for radiological surveillance. He shall report all findings to the contract radiological safety officer for AGNS.

## 4.0 REQUIREMENTS

### 4.1 General

- 4.1.1 All surveys will be conducted under the guidance of the Contract RSO.
- 4.1.2 All surveys performed for AGNS will be conducted in accordance with CNSI Procedure S20-RP-002, Reference 2.5.

### 4.2 Frequency

- 4.2.1 CNSI Health Physics personnel will perform an initial survey in January 1984 to establish a baseline set of radiation/contamination levels.
- 4.2.2 CNSI Health Physics personnel will perform semi-annual surveys to occur in May and November to determine existing radiation/contamination levels.

### 4.3 Reporting

- 4.3.1 The CNSI Health Physics Supervisor shall report all findings to the Contract RSO within fourteen days after completion of each survey.
- 4.3.2 The Contract RSO shall submit a report detailing the survey results to AGNS within 30 days after completion of each survey.
- 4.3.3 The Contract RSO shall immediately notify personnel as required by contract of any unauthorized entry into the facility or smearable contamination found in excess of 50 dpm/100 cm<sup>2</sup> alpha, 500 dpm/100cm<sup>2</sup> beta-gamma, or of any change in radiation levels the Contract RSO determines to be significant.

## 5.0 DETAILED PROCEDURE

- 5.1 The initial baseline survey shall encompass the following areas:

- 5.1.1 Separations Facility

- 5.1.1.1 Hot and cold lab area
- 5.1.1.2 Analytical chemistry lab
- 5.1.1.3 Engineering lab
- 5.1.1.4 Alpha lab
- 5.1.1.5 Entrance area

- 5.1.1.6 Hallways
- 5.1.1.7 Process building ground floor
- 5.1.1.8 High level cell (HLC)
- 5.1.1.9 Plutonium products cell (PPC)
- 5.1.1.10 High intermediate level cell (HILC)
- 5.1.1.11 Intermediate level cell (ILC)
- 5.1.1.12 Uranium products cell (UPC)
- 5.1.1.13 Remote process cell (RPC)
- 5.1.1.14 Fuel receiving storage system entrance area
- 5.1.1.15 Waste tank vaults 419, 420, 425
- 5.1.1.16 Diverter cell

5.1.2 UF<sub>6</sub> Facility

- 5.1.2.1 Process building ground floor
- 5.1.2.2 Base of main stack
- 5.1.2.3 Decontamination tank area
- 5.1.2.4 Decontamination room
- 5.1.2.5 Caliner area
- 5.1.2.6 Eighth floor bag house
- 5.1.2.7 Oxide vacuum system
- 5.1.2.8 Stairwells

NOTE: THE FOLLOWING AREAS ARE TO BE SEALED BY CNSI AFTER THIS SURVEY: ALPHA LAB, PU LAB, RADIO-CHEM II LAB, GAS CHROMATOGRAPHY LAB (ALL LOCATED IN THE HOT AND COLD LAB AREA), PPC, HLC, HILC, UPC, ILC, RPC, DIVERTER CELL, WASTE TANK VAULTS (419, 420, 425).

- 5.2 The semiannual surveys are to include all areas listed in step 5.1 with the exception of the PPC, HLC, HILC, UPC, ILC, RPC, Diverter cell, waste tank vaults (419, 420, 425). These areas shall be surveyed on the exterior only. Any seals that are broken to gain access for surveys shall be replaced upon exit of each area.

- 5.3 During all surveys, the Health Physics personnel shall conduct a general safety and fire protection inspection of all areas entered.
- 5.4 CNSI personnel shall inspect seals on all areas designated in Step 5.1 on a monthly basis (see NOTE following Step 5.1.2.8).
- 5.5 All personnel entry into the areas listed in Step 5.1 shall be monitored by CNSI Health Physics personnel.
- 5.6 Upon request, CNSI Health Physics personnel shall survey and release (if appropriate) any materials or equipment which might be removed from either the separation facility or the UF<sub>6</sub> facility (including the storage tank area). The following limits shall be adhered to for unconditional release of any material or equipment:

FIXED

$\leq 100$  dpm/60 cm<sup>2</sup> alpha  
 $\leq .1$  mRem/hr beta-gamma  
(at contact)

SMEARABLE

$\leq 22$  dpm/100 cm<sup>2</sup> alpha  
 $\leq 220$  dpm/100 cm<sup>2</sup> beta-gamma