

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
3. CONTAINMENT ISOLATION					
a. Phase "A" Isolation					
1) Manual	----- See Functional Unit 9 -----				
2) From Safety Injection Automatic Actuation Logic	2	1	2	1, 2, 3, 4	13
b. Phase "B" Isolation					
1) Manual	----- See Functional Unit 9 -----				
2) Automatic Actuation Logic	2	1	2	1, 2, 3, 4	13
3) Containment Pressure -- High-High	4	2	3	1, 2, 3	16
c. Purge and Exhaust Isolation					
1) Manual	----- See Functional Unit 9 -----				
2) Containment Radioactivity-* High Train A (VRS 1101, ERS-1301, ERS 1305)	3	1	2	1, 2, 3, 4	17
3) Containment Radioactivity-* High Train B (VRS 1201, ERS-1401, ERS-1405)	3	1	2	1, 2, 3, 4	17

\*This specification only applies during PURGE.

TABLE 3.3-6 (Continued)  
RADIATION MONITORING INSTRUMENTATION  
(OPERABILITY BASES DISCUSSED IN BASES SECTION 3/4 3.3.1)

<u>OPERATION MODE/INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>ALARM SETPOINT</u>	<u>TRIP SETPOINT</u>	<u>ACTION</u>
2. Mode 6				
A. Train A	any 2/3 channels			22
i. Containment Area <sup>+</sup> Radiation Channel (VRS-1101)		N/A	≤ 54 mR/hr	
ii. Particulate Channel <sup>+</sup> (ERS-1301)		N/A	≤ 2.52 μCi	
iii. Noble Gas Channel <sup>+</sup> (ERS-1305)		N/A	≤ 4.4x10 <sup>-3</sup> μCi/cc	
B. Train B	any 2/3 channels			22
i. Containment Area <sup>+</sup> Radiation Channel (VRS-1201)		N/A	≤ 54 mR/hr	
ii. Particulate Channel <sup>+</sup> (ERS-1401)		N/A	≤ 2.52 μCi	
iii. Noble Gas Channel <sup>+</sup> (ERS-1405)		N/A	≤ 4.4x10 <sup>-3</sup> μCi/cc	
3. Mode ***				
A. Spent Fuel Storage (RRC-330)	1	≤ 15 mR/hr	≤ 15 mR/hr	21

<sup>+</sup> This specification only applies during PURGE

\*\*\* With fuel in storage pool or building

**SURVEILLANCE REQUIREMENTS (Continued)**

- 4.7.1.2      Each auxiliary feedwater pump shall be demonstrated OPERABLE when tested pursuant to Specification 4.0.5 by:
- a.      Verifying that each motor driven auxiliary feedwater pump's developed head at the test flow point is greater than or equal to the required developed head.
  - b.      Verifying that the turbine driven auxiliary feedwater pump's developed head at the test flow point is greater than or equal to the required developed head. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3.
  - c.      Verifying at least once per 31 days that each non-automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in its correct position.
  - d.      Verifying at least once per 31 days that each automatic valve in the flow path is in the correct position whenever the auxiliary feedwater system is placed in automatic control or when above 10% RATED THERMAL POWER. This requirement is not applicable for those portions of the auxiliary feedwater system being used intermittently to maintain steam generator water level.
  - e.      Verifying at least once per 18 months that each automatic valve in the flow path actuates to its correct position upon receipt of the appropriate engineered safety features actuation test signal required by Specification 3/4.3.2.
  - f.      Verifying at least once per 18 months that each auxiliary feedwater pump starts as designed automatically upon receipt of the appropriate engineered safety features actuation test signal required by Specification 3/4.3.2.
  - g.      Verifying at least once per 18 months that the unit cross-tie valves can cycle full travel. Following cycling, the valves will be verified to be in their closed positions.

**3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS**  
**3/4.9 REFUELING OPERATIONS**

---

**STORAGE POOL VENTILATION SYSTEM\*\***

**LIMITING CONDITION FOR OPERATION**

3.9.12 The spent fuel storage pool exhaust ventilation system shall be OPERABLE.

**APPLICABILITY:** Whenever irradiated fuel is in the storage pool.

**ACTION:**

- a. With no fuel storage pool exhaust ventilation system OPERABLE, suspend all operations involving movement of fuel within the storage pool or crane operation with loads over the storage pool until at least one spent fuel storage pool exhaust ventilation system is restored to OPERABLE status.\*
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

**SURVEILLANCE REQUIREMENTS**

4.9.12 The above required fuel storage pool ventilation system shall be demonstrated OPERABLE:

- a. At least once per 31 days by initiating flow through the HEPA filter and charcoal adsorber train and verifying that the train operates for at least 15 minutes.
- b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system, by:
  1. Deleted
  2. Verifying that the charcoal adsorbers remove  $\geq 99\%$  of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1980 while operating the exhaust ventilation system at a flow rate of 30,000 cfm  $\pm 10\%$ .

---

\* The crane bay roll-up door and the south door of the auxiliary building crane bay may be opened under administrative control during movement of fuel within the storage pool or crane operation with loads over the storage pool.

\*\* Shared system with D.C. COOK - UNIT 2.

---

## **6.0 ADMINISTRATIVE CONTROLS**

---

### **6.1 RESPONSIBILITY**

- 6.1.1 The Plant Manager shall be responsible for overall facility operation and shall delegate in writing the succession to this responsibility during his absence.
- 6.1.2 The Shift Manager (or during his absence from the control room complex, a designated individual) shall be responsible for the control room command function. A management directive to this effect signed by the Site Vice President shall be reissued to all station personnel on an annual basis.

### **6.2 ORGANIZATION**

#### **ONSITE AND OFFSITE ORGANIZATIONS**

- 6.2.1 Onsite and offsite organizations shall be established for unit operation and corporate management, respectively. The onsite and offsite organizations shall include the positions for activities affecting the safety of the nuclear power plant.
- a. Lines of authority, responsibility, and communication shall be established and defined for the highest management level through intermediate levels to and including all operating organization positions. These relationships shall be documented and updated, as appropriate, in the form of organizational charts. These organizational charts will be documented in the UFSAR and updated in accordance with 10 CFR 50.71(e).
  - b. The Plant Manager shall be responsible for overall unit safe operation and shall have control over those onsite activities necessary for safe operation and maintenance of the plant.
  - c. The Senior Vice President - Nuclear Operations shall have corporate responsibility for overall plant nuclear safety and shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support to the plant to ensure nuclear safety.
  - d. The individuals who train the operating staff and those who carry out health physics and quality assurance functions may report to the appropriate onsite manager; however, they shall have sufficient organizational freedom to ensure their independence from operating pressures.

## **6.0 ADMINISTRATIVE CONTROLS**

---

### **6.2 ORGANIZATION (Continued)**

#### **FACILITY STAFF**

6.2.2 The Facility organization shall be subject to the following:

- a. Each on duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1.
- b. At least one licensed Operator shall be in the control room when fuel is in the reactor. In addition, while the unit is in Mode 1, 2, 3, or 4, at least one licensed Senior Operator shall be in the control room.
- c. An individual<sup>\*</sup> qualified in radiation protection procedures shall be on site when fuel is in the reactor.
- d. All CORE ALTERATIONS shall be directly supervised by a licensed Senior Operator trained or qualified in refueling and CORE ALTERATIONS (SO-CA) who has no other concurrent responsibilities during this operation.
- e. The amount of overtime worked by plant staff members performing safety-related functions must be limited in accordance with NRC Policy Statement on working hours (Generic Letter 82-12).
- f. The Shift Manager and Unit Supervisor shall hold a Senior Operator License.
- g. The Operations Director must hold or have held a Senior Operator License at Cook Nuclear Plant or a similar reactor, or have been certified for equivalent senior operator knowledge. If the Operations Director does not hold a Senior Operator License, then a line (v. staff) operations middle manager shall hold a Senior Operator License for the purposes of directing operational activities.

---

\* The unexpected absence, for a period of time not to exceed 2 hours, of the on-site individual qualified in radiation protection procedures is permitted provided immediate action is taken to fill the required position.

TABLE 6.2-1  
MINIMUM SHIFT CREW COMPOSITION\*

LICENSE CATEGORY	APPLICABLE MODES	
	1, 2, 3 & 4	5 & 6
SM	1**	1** <sup>#</sup>
SOL	1	None
OL	2	1
Non-Licensed	2	1
Shift Technical Adv.	1**	None

# Does not include the licensed Senior Operator - CA supervising CORE ALTERATIONS.

\* Shift crew composition may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements of Table 6.2-1.

\*\* Shared with Cook Nuclear Plant Unit 2.

## **6.0 ADMINISTRATIVE CONTROLS**

---

### **6.3 FACILITY STAFF QUALIFICATIONS**

- 6.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions, except for (1) the Plant Radiation Protection Manager, who shall meet or exceed qualifications of Regulatory Guide 1.8, September 1975, (2) the Shift Technical Advisor, who shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design, and response and analysis of the plant for transients and accidents and, (3) the Operations Director, who must be qualified as specified in Section 6.2.2.g. |

### **6.4 TRAINING**

- 6.4.1 A retraining and replacement training program for the facility staff shall be maintained under the direction of the Training Manager and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI N18.1-1971 and 10 CFR Part 55.

### **6.5 DELETED**



---

## **6.0 ADMINISTRATIVE CONTROLS**

### **6.6 REPORTABLE EVENT ACTION**

6.6.1 The following actions shall be taken for REPORTABLE EVENTS:

- a. The Commission shall be notified and a report submitted pursuant to the requirements of 10 CFR 50.73.
- b. Each REPORTABLE EVENT shall be reviewed by the PORC, and the results of this review shall be submitted to the NSRB and the Site Vice President.

### **6.7 SAFETY LIMIT VIOLATION**

6.7.1 The following actions shall be taken in the event a safety limit is violated:

- a. The NRC Operations Center shall be notified by telephone as soon as possible and in all cases within 1 hour. The Chairman of the NSRB shall be notified within 24 hours.
- b. A Safety Limit Violation Report shall be prepared. This report shall be reviewed by the PORC. This report shall describe (1) applicable circumstances preceding the violation; (2) effects of the violation upon facility components, systems or structures; and (3) corrective action taken to prevent recurrence.
- c. The Safety Limit Violation Report shall be submitted to the Commission, the Chairman of the NSRB and the Senior Vice President – Nuclear Operations within 14 days of the violation.
- d. Operation of the unit shall not be resumed until authorized by the Commission.

---

## **6.0 ADMINISTRATIVE CONTROLS**

---

### **MONTHLY REACTOR OPERATING REPORT**

- 6.9.1.8 Routine reports of operating statistics and shutdown experience, including documentation of all challenges to the PORVs or safety valves, shall be submitted on a monthly basis to the U.S. Nuclear Regulatory Commission (Attn: Document Control Desk), Washington, D.C. 20555, with a copy to the Regional Office no later than the 15th of each month following the calendar month covered by the report.

### **CORE OPERATING LIMITS REPORT**

- 6.9.1.9.1 Core operating limits shall be established and documented in the CORE OPERATING LIMITS REPORT before each reload cycle or any remaining part of a reload cycle for the following:
- a. Moderator Temperature Coefficient Limits for Specification 3/4.1.1.4,
  - b. Rod Drop Time Limits for Specification 3/4.1.3.3,
  - c. Shutdown Rod Insertion Limits for Specification 3/4.1.3.4,
  - d. Control Rod Insertion Limits for Specification 3/4.1.3.5,
  - e. Axial Flux Difference for Specification 3/4.2.1,
  - f. Heat Flux Hot Channel Factor for Specification 3/4.2.2,
  - g. Nuclear Enthalpy Rise Hot Channel Factor for Specification 3/4.2.3, and
  - h. Allowable Power Level for Specification 3/4.2.6.
- 6.9.1.9.2 The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC in:
- a. WCAP-9272-P-A, "Westinghouse Reload Safety Evaluation Methodology," July 1985 (Westinghouse Proprietary),
  - b. WCAP-8385, "Power Distribution Control and Load Following Procedures - Topical Report," September 1974 (Westinghouse Proprietary),
  - c. WCAP-10216-P-A, Revision 1A, "Relaxation of Constant Axial Offset Control/Fq Surveillance Technical Specification," February 1994 (Westinghouse Proprietary),
  - d. WCAP-10266-P-A Rev. 2, "The 1981 Version of Westinghouse Evaluation Mode Using BASH Code," March 1987 (Westinghouse Proprietary).
  - e. WCAP-12610-P-A, "VANTAGE+ Fuel Assembly Reference Core Report," July 1991 (Westinghouse Proprietary).

## **6.0 ADMINISTRATIVE CONTROLS**

---

### **6.11 RADIATION PROTECTION PROGRAM**

Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure.

### **6.12 HIGH RADIATION AREA**

6.12.1 Pursuant to 10 CFR 20.1601(c), in lieu of the requirements of 10 CFR 20.1601(a) and (b), each high radiation area in which radiation levels from radiation sources external to the body could result in an individual receiving a dose equivalent in excess of 100 mrem but less than or equal to 1000 mrem in 1 hour at 30 cm from the radiation source or 30 cm from any surface that the radiation penetrates, shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring issuance of a Radiation Work Permit\*. Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

- a. A radiation monitoring device which continuously indicates the radiation dose rate in the area.
- b. A radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate level in the area has been established and personnel have been made aware of it.
- c. An individual qualified in radiation protection procedures who is equipped with a radiation dose rate monitoring device. This individual shall be responsible for providing positive control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by the Plant Radiation Protection Manager in the Radiation Work Permit.

6.12.2 The requirements of 6.12.1 shall also apply to each high radiation area in which the radiation level at 30 cm from the radiation source or 30 cm from any surface that the radiation penetrates is greater than 1000 mrem in 1 hour. When possible, locked doors shall be provided to prevent unauthorized entry into such areas, and the keys shall be maintained under the administrative control of the Shift Manager on duty and/or the Plant Radiation Protection Manager. Doors shall remain locked except during periods of access by personnel under an approved RWP which shall specify the dose rate levels in the immediate work areas. In the event that it is not possible or practicable to provide locked doors due to area size or configuration, the area shall be roped off, conspicuously posted and a flashing light shall be activated as a warning device.

---

\* Health Physics (Radiation Protection) personnel shall be exempt from the RWP issuance requirement during the performance of their assigned radiation protection duties, provided they comply with approved radiation protection procedures for entry into high radiation areas.

## **6.0 ADMINISTRATIVE CONTROLS**

---

### **6.13 PROCESS CONTROL PROGRAM (PCP)**

#### **6.13.1 Changes to the PCP:**

- a. Shall be documented and records of reviews performed shall be retained as required by the Quality Assurance Program Description, Appendix C, Section 6.10.2.n. This documentation shall contain:
  - 1. Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s) and
  - 2. A determination that the change will maintain the overall conformance of the solidified waste product to existing requirements of Federal, State, or other applicable regulations.
- b. Shall become effective after review and acceptance by the PORC and the approval of the Plant Manager.

### **6.14 OFFSITE DOSE CALCULATION MANUAL (ODCM)**

#### **6.14.1 Changes to the ODCM:**

- a. Shall be documented and records of reviews performed shall be retained as required by the Quality Assurance Program Description, Appendix C, Section 6.10.2.n. This documentation shall contain:
  - 1. Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s) and
  - 2. A determination that the change will maintain the level of radioactive effluent control pursuant to 10 CFR 20.1302, 40 CFR Part 190, 10 CFR 50.36a, and Appendix I to 10 CFR Part 50 and not adversely impact the accuracy or reliability of effluent, dose, or setpoint calculations.
- b. Shall become effective after review and acceptance by the PORC and the approval of the Plant Manager.
- c. Shall be submitted to the Commission in the form of a complete, legible copy of the entire ODCM as a part of or concurrent with the Annual Radioactive Effluent Release Report for the period of the report in which any change to the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (e.g., month/year) the change was implemented.