

## APPENDIX B

### ITEMS OF NONCOMPLIANCE

Based on the inspection conducted on October 3-10, 1980 certain licensee activities appear to have been in noncompliance with NRC requirements, as noted below.

1. Technical Specification 6.11, "Radiation Protection Program," states, "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."

- a. Procedure No. N-RTP-45, "Whole Body Counter System," Revision 1, Section 2.4.1, states that "Whole body counting for site personnel will be scheduled 3 times a year and every effort will be made to count each regularly assigned site person at least twice a year."

Contrary to the above, a review of the whole body count records for the onsite technicians and supervisors in the Radiochemistry and Radiation Protection Department (RRPD) revealed that approximately 75% of the RRPD personnel had not been whole body counted within the past two years.

- b. Procedure RP-2, "Radiation Work Permit Procedure" specifies the limitations for areas requiring entry under a Radiation Work Permit (RWP).

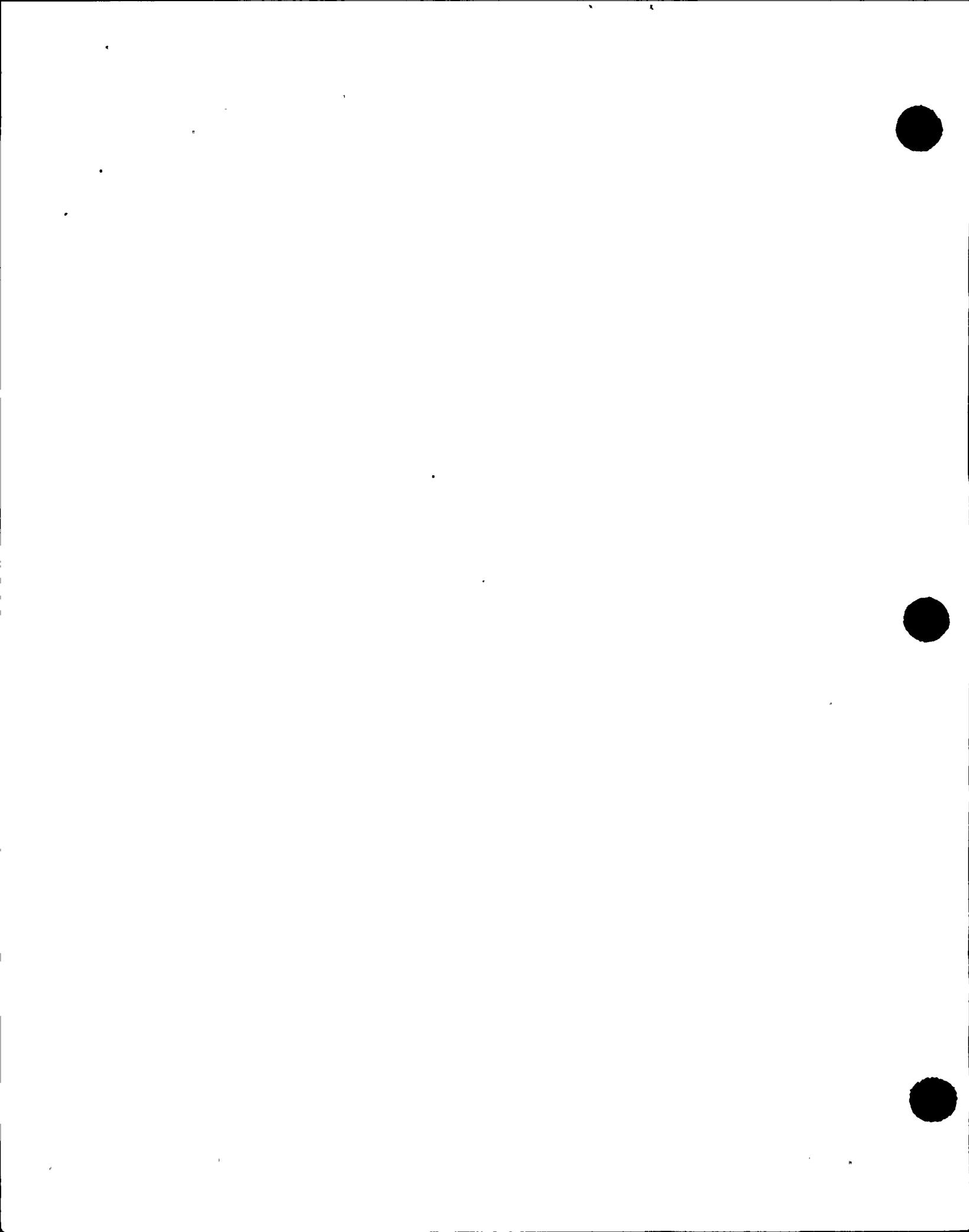
Contrary to the above, on October 2, 1980 a Security Guard entered the Reactor Building Spent Fuel Area. The area required a RWP for entry. The Security Guard was not on a RWP for the area nor was the guard qualified as a Self Monitor.

- c. Procedure RP-1, "Access and Radiological Control," Section 8.1 states "Certain personnel other than radiation protection technicians are trained to perform basic radiation and contamination monitoring. These personnel are permitted to monitor for themselves within the following limits.

- (1) Beta-gamma radiation monitoring up to 2500 mrad/hr.
    - (2) Beta-gamma contamination surveys up to 25,000 c/m. per square foot, or 25,000 dpm/100 cm<sup>2</sup>.

Contrary to the above, on October 2, 1980 a Self Monitor entered the Reactor Building Spent Fuel Area on an Extended RWP. The previous routine survey of the area, dated September 22, 1980, indicated contamination levels of 30,797 and 48,582 dpm/100 cm<sup>2</sup>, these levels exceed the limits for self monitors.

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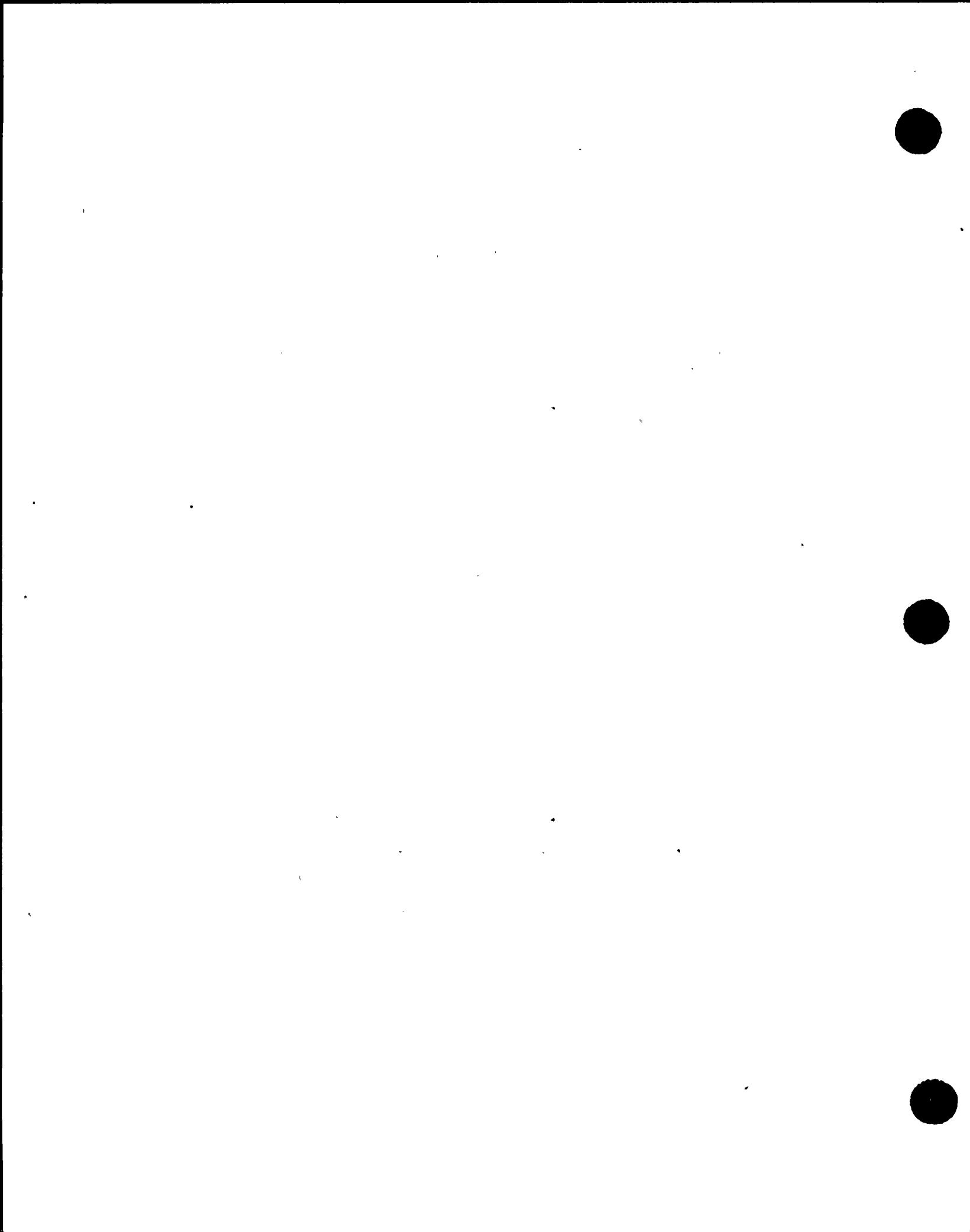
- d. Procedures S-RTP-16 and S-RTP-15 provided instructions for the calibration of the Teletector and Cutie Pie survey instruments.

Contrary to the above, as of October 8, 1980, the calibration procedures had not been adhered to.

2. Technical Specification 6.13, "High Radiation Area," states, "In lieu of the 'control device' or 'alarm signal' required by paragraph 20.203(c)(2) of 10 CFR 20: Each High Radiation Area in which the intensity of radiation is greater than 100 mrem/hr but less than 1000 mrem/hr shall be barricaded and conspicuously posted as a High Radiation Area and entrance thereto shall be controlled by issuance of a Radiation Work Permit and any individual or group of individuals permitted to enter such areas shall be provided with a radiation monitoring device which continuously indicates the radiation dose rate in the area."
- a. Contrary to the above, on October 7, 1980, an individual entered a high radiation area located in the Turbine Building near the exit to the Screen House without the required radiation monitoring device.
- b. Contrary to this requirement on October 2, 1980, at approximately 11:15 a.m. the High Radiation Area door (providing access to areas having dose rates in excess of 1000 mrem/hr) located on the 277 foot elevation, Row 14 between column Ba-Bb was found unlocked and unattended.

This is also a recurrent and unresolved item. (See inspection reports 79-01, 78-12, 77-26, and 77-05)

3. Technical Specification 6.8.1 states, "Written procedures and administrative policies shall be established, implemented and maintained that meet or exceed the requirements and recommendations of Section 5.2 and 5.3 of ANSI N18.7-1972 and Appendix "A" of USAEC Regulatory Guide 1.33..."
- a. Contrary to the above there was no written procedure for the radiological calibration of the air-ejector off-gas monitor channels 11 and 12.
- b. Contrary to the above, procedures established and implemented for the calibration of portable and laboratory surveillance instruments did not meet the requirements of ANSI N18.7-1972, in that the "as-found" and "as-left conditions" are not recorded.
- c. Contrary to the above, procedures were not developed, implemented or maintained for the operation of the Eberline Model PNR-4 Neutron Rem Counter or for the operation and calibration of the Eberline Model RM-3 count rate meter.
- d. Contrary to the above, procedures were not established, implemented, or maintained for the operation or calibration of the Ge(Li) gamma spectroscopy system utilizing the Canberra 8180 MCA and Hewlett Packard 9825A.



- e. Procedure V.A.2-N, "Operation and Calibration of the Low Background Proportional Counter," provided instructions for the set up and calibration of the Nuclear Chicago gas flow proportional counter.

Contrary to the above, as of October 8, 1980, the procedure had not been adhered to.

- 4. Technical Specification 3.6.5.3 "A complete inventory of radioactive byproduct materials in sealed sources in possession shall be maintained current at all times".

Contrary to the above, on October 2 and 3, 1980, several sealed sources were found in the counting room and calibration room which were not unidentified as to isotope, source strength, date of manufacture or other appropriate markings to indicate that they contained byproduct material. No inventory existed for these sources.

- 5. Environmental Technical Specifications 2.4.4(d) states "All waste gas effluent monitors shall be calibrated at least quarterly by means of a known radioactive source which has been calibrated to a National Bureau of Standards source. Each monitor shall have an instrument channel test at least weekly and a sensor check at least daily."

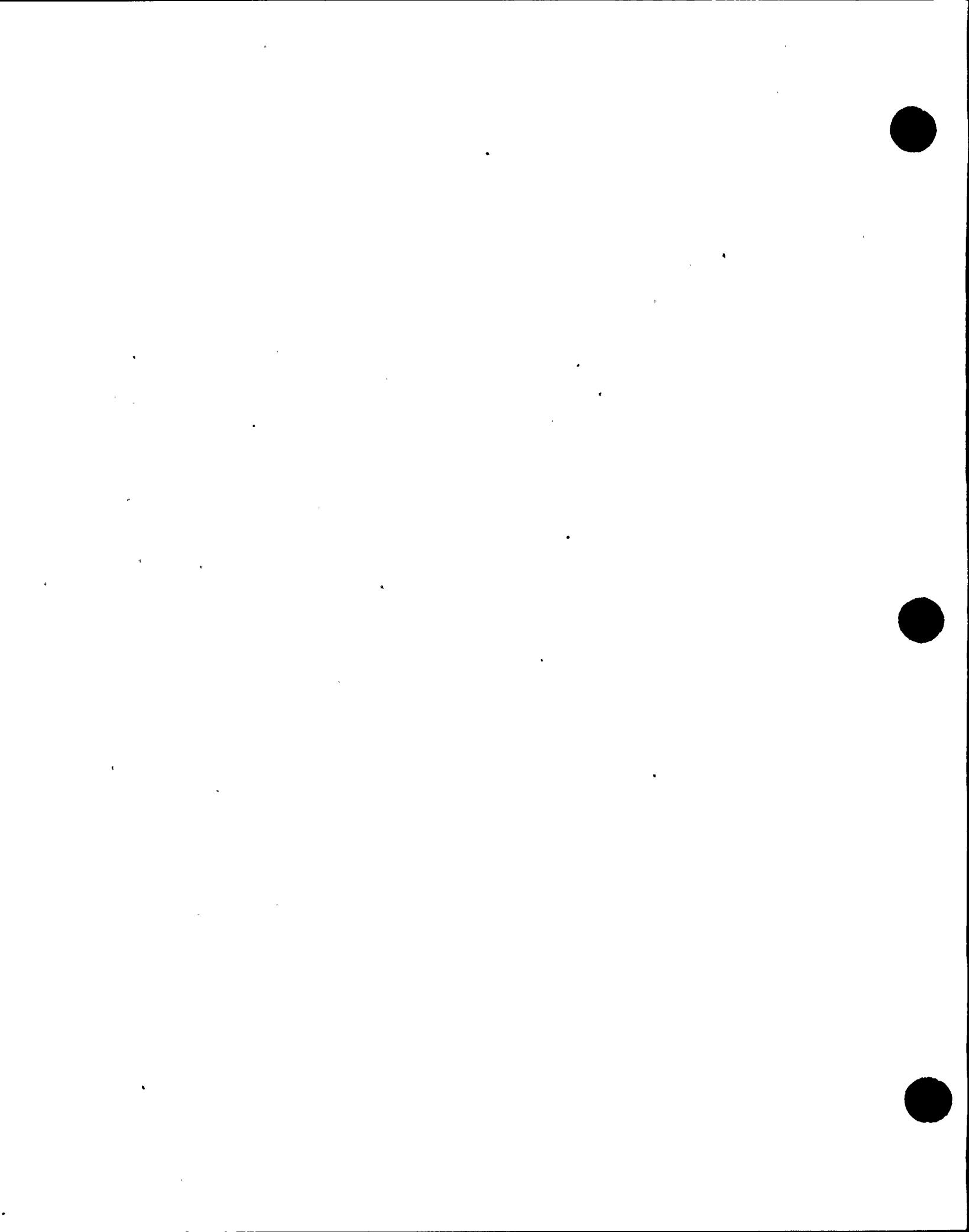
Contrary to the above, no radiological calibration of the air ejector off-gas monitor channels 11 and 12 were performed.

- 6. 10 CFR 20.103(c) states "When respiratory protective equipment is used to limit the inhalation of airborne radioactive material pursuant to paragraph (b)(2) of this section, the licensee may make allowances for such use in estimating exposures of individuals to such materials provided that such equipment is used as stipulated in Regulatory Guide 8.15, 'Acceptable Programs for Respiratory Protection'."

- a. Section 4.f of Regulatory Guide 8.15 requires "bioassays...to evaluate individual exposure and to assess protection actually provided."

Contrary to the above, a review of the whole body counting reports during the period March through April of 1979 revealed that six individuals had whole body counts which were between 10% and 20% of the MPBB of Cobalt 60 and no followup was done; i.e., showering and recounting, identifying the probable cause, determining whether other individuals were exposed, reviewing air sampling data, or performing additional bioassays.

- b. Section 4.h of Regulatory Guide 8.15 requires "The medical status of each respirator user is to be reviewed at least annually".



Contrary to the above, a random review of the medical records of six technicians in the Radiochemistry and Radiation Protection Department revealed that two of the technicians (who were respirator users) did not have their medical status reviewed annually.

- c. Section 8.a of Regulatory Guide 8.15 requires "Respirable air of approved quality and quantity is to be provided and oxygen deficiency is to be avoided."

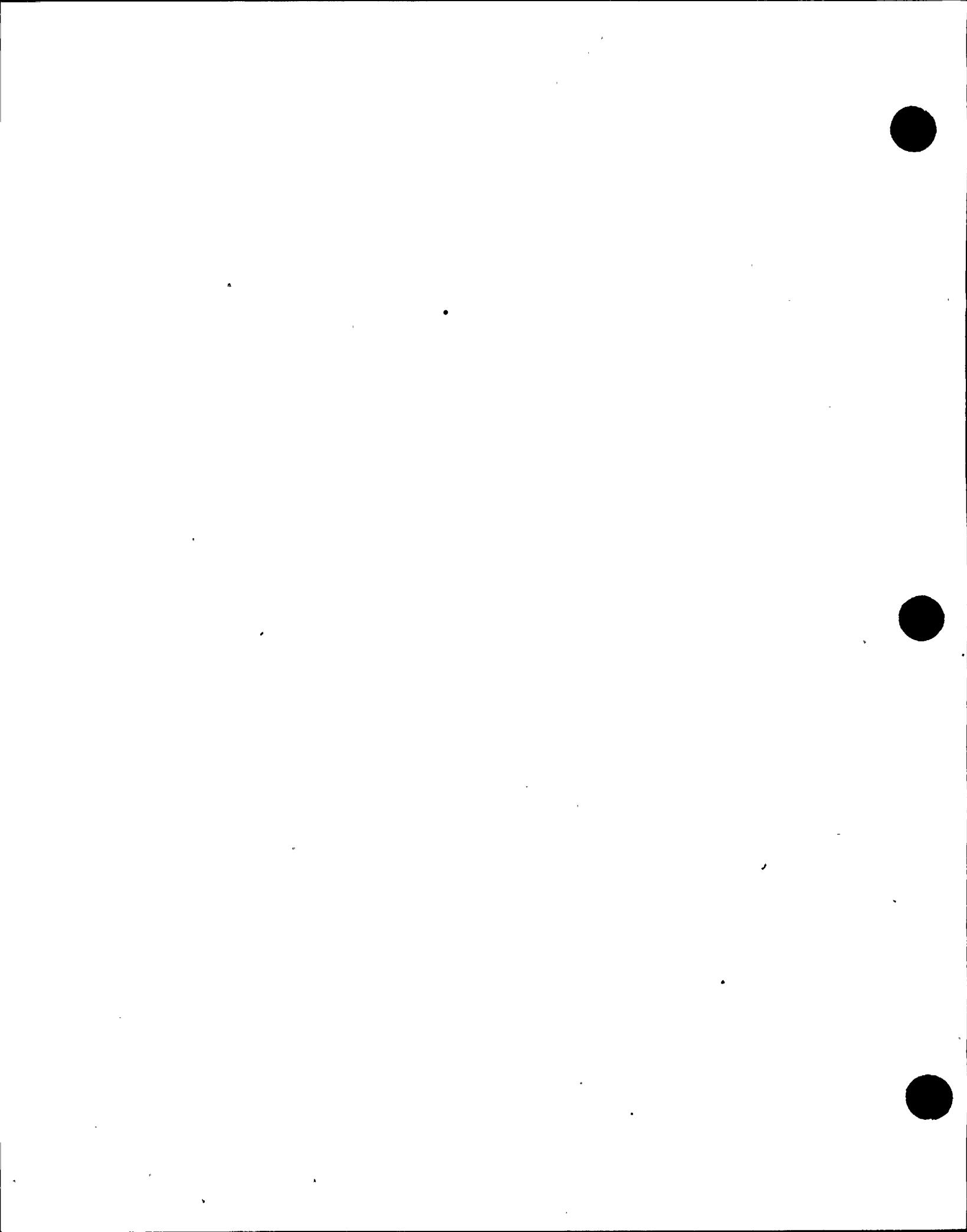
Contrary to the above, air quality testing of the breathing air system was not done to assure that the air quality met grade D standards or better.

7. 10 CFR 20.201, "Surveys" in subparagraph (a) states in part, "When appropriate, such evaluation includes a physical survey of the location of materials and equipment, and measurements of levels of radiation or concentrations of radioactive material present." 10 CFR 20.103(a)(3) states, "For purposes of determining compliance with the requirements of this section the licensee shall use suitable measurements of concentrations of radioactive materials in air for detecting and evaluating airborne radioactivity in restricted areas and---." Technical Specification 6.11, "Radiation Protection Program," states, "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."

Contrary to the above, the portable air sampling methodology was not suitable and procedures did not specify methods for counting air samples.

8. 10 CFR 20.203(b), "Radiation areas" states, "Each radiation area shall be conspicuously posted with a sign or signs bearing the radiation caution symbol and the words: CAUTION RADIATION AREA." 10 CFR 20.203(c), "High radiation areas" states, "Each high radiation area shall be conspicuously posted with a sign or signs bearing the radiation caution symbol and the words: CAUTION HIGH RADIATION AREA." Technical Specification 6.11, "Radiation Protection Program," states, "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." The requirements for posting radiation areas and high radiation areas are also given in Procedure RP-1, "Access and Radiological Control."

Contrary to the above, on October 2, 1980, a "CAUTION RADIOACTIVE MATERIAL" tag was used to post a high radiation area access on elevation 261 of the Turbine Building. On the same date "CAUTION RADIOACTIVE MATERIAL" tags were used to post one or more sides of two roped off radiation areas. These areas were located on elevation 261 of the Turbine Building in the vicinity of the Feedwater Pumps and in the vicinity of the air compressors.



9. 10 CFR 20.203(f)(1) and (2) states, "(1) Except as provided in paragraph (f)(3) of this section, each container of licensed material shall bear a durable, clearly visible label identifying the radioactive contents. (2) A label required pursuant to paragraph (f)(1) of this section shall bear the radiation caution symbol and the words 'CAUTION, RADIOACTIVE MATERIAL' or 'DANGER RADIOACTIVE MATERIAL'. It shall also provide sufficient information to permit individuals handling or using the containers, or working in the vicinity thereof, to take precautions to avoid or minimize exposures."

Contrary to the above, on October 2, 1980, a container housing a neutron source located in the Reactor Building Spent Fuel Area was not labeled as required. On October 2, 1980, six source containers or sources located in the Source Calibration Room were not labeled as required. These sources were: four Area Radiation Monitor Calibration Units; a check source containing 29 microcuries of Cs-137 labeled "C8"; and, a check source containing in excess of 100 microcuries of Cs-137 labeled, "Cs-137, 80 mR @ 3 inches."

10. 10 CFR 20.401(b) states, "Each licensee shall maintain records in the same units used in this part, showing the results of surveys required by §20.201(b)". Procedure RP-1 states, "The survey performed by a Self Monitor is intended to satisfy the requirements of 10 CFR 20.201, 'Surveys'."

Contrary to the above, surveys performed by Self Monitors were not recorded as of October 10, 1980.

11. The regulatory requirement, 10 CFR 50.59, "Changes, tests and experiments," requires the licensee to perform a written safety evaluation of changes in the facility as described in the safety analysis report, in order to determine that such proposed change does not involve a change in the technical specifications incorporated in the license or an unreviewed safety question. Such safety evaluations shall provide the basis for the determination that the change does not involve an unreviewed safety question.

Contrary to this requirement, on or about February 15, 1978, two filter elements (#77-26 and #77-27) which were components of the Main Condenser Air Removal and Off Gas System, and are described in the Final Safety Analysis Report, Section 2.1.1, "Condenser Air Ejector Exhaust (Off Gas) System," were removed from the system. This change in the facility was done without performing a written safety evaluation providing the basis for the determination that the change did not involve an unreviewed safety question.

