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1.1 FUEL CLADDING INTEGRITYApplicability

The Safety Limits established to preserve the fuel cladding integrity apply to those variables which monitor the fuel thermal behavior.

Objective

The objective of the Safety Limits is to establish limits below which the integrity of the fuel cladding is preserved.

Action

If a Safety Limit is exceeded, the reactor shall be in at least hot shutdown within 2 hours.

Specifications

- A. Reactor Pressure >800 psia and Core Flow >10% of Rated

The existence of a minimum critical power ratio (MCPR) less than 1.07 shall constitute violation of the fuel cladding integrity safety.

- B. Core Thermal Power Limit (Reactor Pressure <800 psia and/or Core Flow <10%)

When the reactor pressure is <800 psia or core flow is less than 10% of rated, the core thermal power shall not exceed 25% of rated thermal power.

- C. Power Transient

To ensure that the Safety Limit established in Specification 1.1.A and 1.1.B is not exceeded, each required scram shall be initiated by its expected scram signal. The Safety Limit shall be assumed to be exceeded when scram is accomplished by a means other than the expected scram signal.

2.1 FUEL CLADDING INTEGRITYApplicability

The Limiting Safety System Settings apply to trip settings of the instruments and devices which are provided to prevent the fuel cladding integrity Safety Limits from being exceeded.

Objective

The objective of the Limiting Safety System Settings is to define the level of the process variables at which automatic protective action is initiated to prevent the fuel cladding integrity Safety Limits from being exceeded.

SpecificationsA. Trip Settings

The limiting safety system trip settings shall be as specified below:

1. Neutron Flux Trip Settingsa. APRM Flux Scram Trip Setting (Run Mode)

When the Mode Switch is in the RUN position, the APRM flux scram trip setting shall be:

$$S \leq 0.66 W + 54\%$$

where:

S = Setting in percent of rated thermal power (2381 MWt)

W = Loop recirculation flow rate in percent of rated (rated loop recirculation flow rate is that recirculation flow rate which provides 100% coreflow at 100% power)

SAFETY LIMIT

1.2 REACTOR COOLANT SYSTEM INTEGRITY

Applicability:

Applies to limits on reactor coolant system pressure.

Objective:

To establish a limit below which the integrity of the reactor coolant system is not threatened due to an overpressure condition.

Action

If a Safety Limit is exceeded, the reactor shall be in at least hot shutdown within 2 hours.

Specifications:

1. The reactor vessel dome pressure shall not exceed 1337 psig at any time when irradiated fuel is present in the reactor vessel.
2. The reactor vessel dome pressure shall not exceed 75 psig at any time when operating the Residual Heat Removal pump in the shutdown cooling mode.

LIMITING SAFETY SYSTEM SETTING

2.2 REACTOR COOLANT SYSTEM INTEGRITY

Applicability:

Applies to trip settings of the instruments and devices which are provided to prevent the reactor system safety limits from being exceeded.

Objective:

To define the level of the process variables at which automatic protective action is initiated to prevent the pressure safety limit from being exceeded.

Specifications:

1. The limiting safety system settings shall be as specified below:

Protective Action/Limiting Safety System Setting

- A. Scram on Reactor Vessel high pressure-
 ≤ 1045 psig
- B. Relief valve settings-
1080 psig \pm 11 psi (2 valves)
1090 psig \pm 11 psi (3 valves)
1100 psig \pm 11 psi (3 valves)
- C. Safety valve settings-
1240 psig \pm 13 psi (3 valves)
2. Action shall be taken to decrease the reactor vessel dome pressure below 75 psig or the shutdown cooling isolation valves shall be closed.

6.0 ADMINISTRATIVE CONTROLS

6.1 ORGANIZATION

6.1.1 Responsibility

The Station Superintendent shall have the over-all fulltime onsite responsibility for the safe operation of the Cooper Nuclear Station. During periods when the Station Superintendent is unavailable, he may delegate his responsibility to the Assistant to Station Superintendent or, in his absence, to one of the Department Supervisors.

6.1.2 Offsite

The portion of the Nebraska Public Power District management which relates to the operation of this station is shown in Figure 6.1.1.

6.1.3 Plant Staff - Shift Complement

The organization for conduct of operation of the station is shown in Fig. 6.1.2. The shift complement at the station shall at all times meet the following requirements. Note: Higher grade licensed operators may take the place of lower grade licensed or unlicensed operators.

- A. A licensed senior reactor operator (SRO) shall be present at the station at all times when there is any fuel in the reactor.
- B. A licensed reactor operator shall be in the control room at all times when there is any fuel in the reactor.
- C. Two licensed reactor operators shall be in the control room during all startup, shutdown and other periods involving significant planned control rod manipulations. A licensed SRO shall either be in the Control Room or immediately available to the Control Room during such periods.
- D. A licensed senior reactor operator (SRO) with no other concurrent duties shall be directly in charge of any refueling operation, or alteration of the reactor core.

A licensed reactor operator (RO) with no other concurrent duties shall be directly in charge of operations involving the handling of irradiated fuel other than refueling or reactor core alteration operations.
- E. An individual who has been trained and qualified in health physics techniques shall be on site at all times that fuel is on site.
- F. Minimum crew size during reactor operation shall consist of three licensed reactor operators (one of whom shall be licensed SRO) and three unlicensed operators. Minimum crew size during reactor cold shutdown conditions shall consist of two licensed reactor operators (one of whom shall be licensed SRO) and one unlicensed operator.

In the event that any member of a minimum shift crew is absent or incapacitated due to illness or injury a qualified replacement shall be designated to report on-site within two hours.

- G. A Fire Brigade of at least 5 members shall be maintained at all times. This excludes the 3 members of the minimum shift crew necessary for safe shutdowns, and other personnel required for other essential functions during a fire emergency. Three fire Brigade members shall be from the Operations Department and 2 support members may be from other departments inclusive of Security personnel.

Fire Brigade 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 Fire Brigade members provided immediate action is taken to restore the Fire Brigade to within the minimum requirements.

6.1.4 Plant Staff - Qualifications

The minimum qualifications, training, replacement training, and retraining of plant personnel at the time of fuel loading or appointment to the active position shall meet the requirements as described in the American National Standards Institute N-18.1-1971, "Selection and Training of Personnel for Nuclear Power Plants". The Assistant to Station Superintendent qualifications shall comply with Section 4.2 of ANSI-N18.1-1971. The Chemistry and Health Physics Supervisor shall meet or exceed the qualifications of Regulatory Guide 1.8, Sept. 1975; personnel qualification equivalency as stated in the Regulatory Guide may be proposed in selected cases. The minimum frequency of the retraining program shall be every two years. The training program shall be under the direction of a designated member of the plant staff.

- A. A training program for the fire brigade will be maintained under the direction of the plant training coordinator and shall meet or exceed the requirements of Section 27 of the NFPA Code 1976, except for Fire Brigade training sessions which shall be held at least quarterly.

The training program requirements will be provided by a qualified fire protection engineer.

- 6.2.1 The organization and duties of committees for the review and audit of station operation shall be as outlined below:

A. Station Operations Review Committee (SORC)

1. Membership:

- a. Chairman: Station Superintendent or Assistant to Station Superintendent
- b. Engineering Supervisor
- c. Operations Supervisor
- d. Chemistry and Health Physics Supervisor
- e. Maintenance Supervisor
- f. Quality Assurance Supervisor - non-voting member.

Alternate members shall be appointed in writing by the Station Superintendent to serve on a temporary basis; however, no more than one alternate shall serve on the Committee at any one time.

- 2. Meeting Frequency: Monthly, and as required on call of the Chairman.
- 3. Quorum: Station Superintendent or Assistant to Station Superintendent plus two other members including alternates.
- 4. Responsibilities:
 - a. Review all proposed normal, abnormal, maintenance and emergency operating procedures specified in 6.3.1, 6.3.2, 6.3.3, and 6.3.4 and proposed changes thereto; and any other proposed procedures or changes thereto determined by any member to effect nuclear safety.
 - b. Review all proposed tests and experiments and their results, which involve nuclear hazards not previously reviewed for conformance with technical specifications. Submit tests which may constitute an unreviewed safety question to the NPPD Safety Review and Audit Board for review.
 - c. Review proposed changes to Technical Specifications.
 - d. Review proposed changes or modifications to station systems or equipment as discussed in the SAR or which involves an unreviewed safety question as defined in 10CFR50.59(c). Submit changes to equipment or systems having safety significance to the NPPD Safety Review and Audit Board for review.
 - e. Review station operation to detect potential nuclear safety hazards.

6.2 (cont'd)

- f. Investigate all reported instances of violations of Technical Specifications, including reporting evaluation and recommendations to prevent recurrence, to the Division Manager of Power Operations and to the Chairman of the NPPD Safety Review and Audit Board.
- g. Perform special reviews and investigations and render reports thereon as requested by the Chairman of the Safety Review and Audit Board.
- h. Review all events which are required by Technical Specifications to be reported to the NRC in writing within 24 hours.
- i. Review drills on emergency procedures (including plant evacuation) and adequacy of communication with off site groups.
- j. Periodically review procedures required by Specifications 6.3.1, 6.3.2, 6.3.3, and 6.3.4 as set forth in administrative procedures.

5. Authority

- a. The Station Operations Review Committee shall be advisory.
- b. The Station Operations Review Committee shall recommend to the Station Superintendent approval or disapproval of proposals under items 4, a through e and j above. In case of disagreement between the recommendations of the Station Operations Review Committee and the Station Superintendent, the course determined by the Station Superintendent to be the more conservative will be followed. A written summary of the disagreement will be sent to the Division Manager of Power Operations and to the NPPD Safety Review and Audit Board.
- c. The Station Operations Review Committee shall report to the Chairman of the NPPD Safety Review and Audit Board on all reviews and investigations conducted under items 4.f, 4.g, 4.h, and 4.i.
- d. The Station Operations Review Committee shall make tentative determinations regarding whether or not proposals considered by the Committee involve unreviewed safety questions. This determination shall be subject to review and approval by the NPPD Safety Review and Audit Board.

6. Records:

Minutes shall be kept for all meetings of the Station Operations Review Committee and shall include identification of all documen-

tary material reviewed; copies of the minutes shall be forwarded to the Chairman of the NPPD Safety Review and Audit Board and the Director of Power Supply within one month.

7. Procedures:

Written administrative procedures for Committee operation shall be prepared and maintained describing the method for submission and content of presentations to the committee, provisions for use of subcommittees, review and approval by members of written Committee evaluations and recommendations, dissemination of minutes, and such other matters as may be appropriate.

B. NPPD Safety Review and Audit Board (SRAB)

Function: The Board shall function to provide independent review and audit of designated activities.

1. Membership:

- a. Senior Division Manager of Power Operations (chairman)
- b. Division Manager of Licensing and Quality Assurance (alternate Chairman)
- c. Division Manager of Power Projects
- d. Division Manager of Power Operations
- e. Division Manager of Environmental Affairs
- f. Consultants (as required)

The Board members shall collectively have the capability required to review problems in the following areas: nuclear power plant operations, nuclear engineering, chemistry and radiochemistry, metallurgy, instrumentation and control, radiological safety, mechanical and electrical engineering, and other appropriate fields associated with the unique characteristics of the nuclear power plant involved. When the nature of a particular problem dictates, special consultants will be utilized.

Alternate members shall be appointed in writing by the Board Chairman to serve on a temporary basis; however, no more than two alternates shall serve on the Board at any one time.

2. Meeting frequency: Semiannually, and as required on call of the Chairman.
3. Quorum: Chairman or Vice Chairman, plus three members including alternates. No more than a minority of the quorum shall be from groups holding line responsibility for the operation of the plant.
4. Review: The following subjects shall be reported to and reviewed by the NPPD Safety Review and Audit Board.
 - a. The safety evaluations for 1) changes to procedures, equipment or systems and 2) tests or experiments completed under the provision of Section 50.59, 10 CFR, to verify that such actions did not constitute an unreviewed safety question.
 - b. Proposed changes to procedures, equipment or systems which involve an unreviewed safety question as defined in Section 50.59, 10 CFR.

- c. Proposed tests or experiments which involve an unreviewed safety question as defined in Section 50.59, 10 CFR.
 - d. Proposed changes to Appendix A Technical Specifications or this Operating License.
 - e. Violations of applicable codes, regulations, orders, Technical Specifications, license requirements, or of internal procedures or instructions having nuclear safety significance.
 - f. Significant operating abnormalities or deviations from normal and expected performance of plant equipment that affect nuclear safety.
 - g. All events which are required by Technical Specifications to be reported to the NRC in writing within 24 hours.
 - h. Any indication of an unanticipated deficiency in some aspect of design or operation of safety related structures, systems, or components.
 - i. Minutes of meetings of the Station Operations Review Committee.
 - j. Disagreement between the recommendations of the Station Operations Review Committee and the Station Superintendent.
 - k. Review of events covered under e,f,g, and h above include reporting to appropriate members of management on the results of investigations and recommendations to prevent or reduce the probability of recurrence.
5. Authority: The NPPD Safety Review and Audit Board shall be advisory to the General Manager and shall have authority to:
- a. Approve proposed changes to the operating license including Technical Specifications and Safety Analysis Report for submission to the NRC.

- b. Approve safety related changes or modifications to station systems and equipment, provided such changes or modifications do not involve an unreviewed safety question by the NRC and do not require changes in the Operating License.

6. Records:

Minutes shall be recorded for all meetings of the NPPD Safety Review and Audit Board and shall identify all documentary material reviewed. Copies of the minutes shall be forwarded to the General Manager and the Station Superintendent, and such others as the Chairman may designate within one month of the meeting.

7. Procedures:

Written administrative procedures for Board operation shall be prepared and maintained that contain:

- a. Subjects within the purview of the group.
- b. Responsibility and authority of the group including responsibility to identify problems; and to recommend solutions, and authority to verify implementation of approved actions.
- c. Mechanisms for convening meetings.
- d. Provisions for any use of subgroups.
- e. Authority to obtain access to the nuclear power plant operating record files and operating personnel to perform the audit function.
- f. Requirements for distribution of reports and minutes prepared by the group to others in the NPPD organization.
- g. Identification of the management position to which the Board reports.
- h. Provisions for assuring that the Committee is kept informed on a timely basis of matters within its purview.
- i. Provision for a formal approval of the minutes.

8. Audits:

Audits of selected aspects of plant operation shall be performed under the cognizance of SRAB with a frequency commensurate with their safety significance. Audits performed by the Quality Assurance Department which meet the requirements below shall be considered to meet the SRAB audit requirements if the audit results are reviewed by SRAB. A representative portion of procedures and records of the activities performed during the audit period shall be audited and, in addition, observations of performance of operating and maintenance activities shall be included. These audits shall encompass:

6.2 (cont'd)

- a. Verification of compliance with internal rules, procedures (for example: normal, off-normal, emergency, operating, maintenance, surveillance, test, and radiation control procedures) and applicable license conditions at least once per 24 months.
- b. The training, qualification, and performance of the operating staff at least once per 24 months.
- c. The Emergency Plan and implementing procedures at least once per 12 months.
- d. The Security Plan and implementing procedures at least once per 12 months.
- e. The facility fire protection and its implementing procedures at least once per 24 months.
- f. A fire protection and loss prevention inspection will be performed utilizing either qualified off-site licensee personnel or an outside fire protection consultant at least once per 12 months.
- g. An inspection and audit by an outside qualified fire protection consultant shall be performed at least once per 36 months.

6.3 PROCEDURES AND PROGRAMS

6.3.1 Introduction

Station personnel shall be provided detailed written procedures to be used for operation and maintenance of system components and systems that could have an effect on nuclear safety.

6.3.2 Procedures

Written procedures and instructions including applicable check off lists shall be provided and adhered to for the following:

- A. Normal startup, operation, shutdown and fuel handling operations of the station including all systems and components involving nuclear safety.
- B. Actions to be taken to correct specific and foreseen potential or actual malfunctions of safety related systems or components including responses to alarms, primary system leaks and abnormal reactivity changes.
- C. Emergency conditions involving possible or actual releases of radioactive materials.
- D. Implementing procedures of the Security Plan and the Emergency Plan.
- E. Implementing procedures for the fire protection program.

6.3.3 Maintenance and Test Procedures

The following maintenance and test procedures will be provided to satisfy routine inspection, preventive maintenance programs, and operating license requirements.

- A. Routine testing of Engineered Safeguards and equipment as required by the facility License and the Technical Specifications.
- B. Routine testing of standby and redundant equipment.
- C. Preventive or corrective maintenance of plant equipment and systems that could have an effect on nuclear safety.
- D. Calibration and preventive maintenance of instrumentation that could affect the nuclear safety of the plant.
- E. Special testing of equipment for proposed changes to operational procedures or proposed system design changes.

6.3.4 Radiation Control Procedures

Radiation control procedures shall be maintained and made available to all station personnel. These procedures shall show permissible radiation exposure, and shall be consistent with the requirements of 10 CFR 20.

6.3 (cont'd)

A. High Radiation Areas

In lieu of the "control device" or "alarm signal" required by Paragraph 20.203 (c) (2) of 10 CFR 20 each High Radiation Area (100 mrem/hr or greater) shall be barricaded and conspicuously posted as a High Radiation Area and entrance thereto shall be controlled by requiring notification and permission of the shift supervisor. 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.

6.3.5 Temporary Changes

Temporary changes to procedures which do not change the intent of the original procedure may be made, provided such changes are approved by two members of the operating staff holding SRO licenses. Such changes shall be documented and subsequently reviewed by the Station Superintendent within one month.

6.3.6 Exercise of Procedures

Drills of the Emergency Plan procedures shall be conducted annually, including a check of communications with offsite support groups. Drills on the procedures specified in 6.3.2.A, B, and C above shall be conducted as part of the retraining program.

6.3.7 Programs

The following programs shall be established:

A. Systems Integrity Monitoring Program

A program shall be established to reduce leakage from systems outside the primary containment that would or could contain highly radioactive fluids during a serious accident to as low as practical levels. This program shall include provisions establishing preventive maintenance and periodic visual inspection requirements, and leak testing requirements for each system at a frequency not to exceed refueling cycle intervals.

B. Iodine Monitoring Program

A program shall be established to ensure that capability to accurately determine the airborne iodine concentration in vital areas under accident conditions. This program shall include training of personnel, procedures for monitoring and provisions for maintenance of sampling and analysis equipment.

C. Environmental Qualification Program

A. By no later than June 30, 1982 all safety-related electrical equipment in the facility shall be qualified in accordance with the provisions of: Division of Operating Reactors "Guidelines for Evaluating Environmental Qualification of Class 1E Electrical Equipment in Operating Reactors" (DOR Guidelines); or, NUREG-0588 "Interim Staff

Position on Environmental Qualification of Safety-Related Electrical Equipment", December 1979. Copies of these documents are attached to Order for Modification of License DPR-46 dated October 24, 1980.

- B. By no later than December 1, 1980, complete and auditable records must be available and maintained at a central location which describe the environmental qualification method used for all safety-related electrical equipment in sufficient detail to document the degree of compliance with the DOR Guidelines or NUREG-0588. Thereafter, such records should be updated and maintained current as equipment is replaced, further tested, or otherwise further qualified.

6.4 RECORD RETENTION

6.4.1 5 Year Retention

Records and/or logs relative to the following items shall be kept in a manner convenient for review and shall be retained for at least 5 years unless a longer period is required by applicable regulations.

- A. Records of normal station operation, including power levels and periods of operation at each power level.
- B. Records of periodic checks, inspection and/or calibrations performed to verify that Surveillance Requirements are being met.
- C. Records of principal maintenance activities, including inspection, repair, substitution or replacement of principal items of equipment pertaining to nuclear safety.
- D. Records of reportable occurrences as specified in 6.5.2.
- E. Record of changes to plant procedures.
- F. Records of special tests and experiments.
- G. Records of wind speed and direction.

6.4.2 Life Retention

Records and logs relating to the following items shall be kept for the life of the plant.

- A. Records of changes made to the station as described in the Safety Analysis Report and amendments and reflected in updated, corrected and as-built drawings and records.
- B. Records of new and spent fuel inventory and assembly histories.
- C. Records of station radiation and contamination surveys.
- D. Records of off-site environmental monitoring surveys.
- E. Records of radiation exposure for all station personnel, including all contractors and visitors to the station in accordance with 10 CFR 20.
- F. Records of radioactivity in liquid and gaseous wastes released to the environment.
- G. Design Fatigue Usage Evaluation
 - 1. Monitoring, recording, and evaluation will be met for various portions of the reactor coolant pressure boundary (RCPB) for which detailed fatigue

5.4.2.G (cont'd)

usage evaluation per the ASME Boiler and Pressure Vessel Code Section III was performed¹ for the conditions defined in the design specification. The locations to be monitored shall be:

- a. The feedwater nozzles
- b. The shell at or near the waterline
- c. The flange studs

2. Monitoring, Recording, Evaluating, and Reporting

- a. Operational transients that occur during plant operations will, at least annually, be reviewed and compared to the transient conditions defined in the component stress report for the locations listed in 1 above, and used as a basis for the existing fatigue analysis.
- b. The number of transients which are comparable to or more severe than the transients evaluated in the stress report Code fatigue usage calculations will be recorded in an operating log book. For those transients which are more severe, available data, such as the metal and fluid temperatures, pressures, flow rates, and other conditions will be recorded in the log book.
- c. The number of transient events that exceed the design specification quantity and the number of transient events with a severity greater than that included in the existing Code fatigue usage calculations shall be added. When this sum exceeds² the predicated number of design condition events by twenty-five², a fatigue usage evaluation of such events will be performed for the affected portion of the RCPB.

- H. Records of individual plant staff members showing qualifications, training and retraining.
- I. Records for Environmental Qualification which are covered under the provisions of Specification 6.3.
- J. Records of the service lives of all hydraulic and mechanical snubbers, listed on Tables 3.6.1, 3.6.2, 3.6.3, 3.6.4 including the date at which the service life commences and associated installation and maintenance records.

6.4.3 2 Year Retention

Records and logs relating to the following items shall be kept for two years.

- A. The test results, in units of microcuries, for leak tests of sources performed pursuant to Specification 3.8.A.
- B. Records of annual physical inventories verifying accountability of the sources on record.

1. See paragraph N-415.2, ASME Section III, 1965 Edition.

2. The Code rules permit exclusion of twenty-five (25) stress cycles from secondary stress and fatigue usage evaluation. (See paragraphs N-412(t)(3) and N-417.10(f) of the Summer 1968 Addenda to ASME Section III, 1968 Edition.)

6.5 STATION REPORTING REQUIREMENTS

6.5.1 Routine Reports

- A. Introduction - In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following identified reports shall be submitted to the individual(s) designated in the current revision of Reg. Guide 10.1 unless otherwise noted.
- B. Startup Report
 - 1. A summary report of plant startup and power escalation testing shall be submitted following:
 - a. Receipt of an operating license.
 - b. Amendment to the license involving a planned increase in power level.
 - c. Installation of fuel that has a different design or has been manufactured by a different fuel supplier.
 - d. Modifications that may have significantly altered the nuclear, thermal, or hydraulic performance of the plant.

The report shall address each of the tests identified in the FSAR and shall include a description of the measured values of the operating conditions or characteristics obtained during the test program and a comparison of these values with design predictions and specifications. Any corrective actions that were required to obtain satisfactory operation shall also be described. Any additional specific details required in license conditions based on other commitments shall be included in this report.

- 2. Startup reports shall be submitted within (1) 90 days following completion of the startup test program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If all three events are not completed, supplementary reports shall be submitted every three months.

C. Annual Reports

Routine reports covering the subjects noted in 6.5.1.C.1 6.5.1.C.2, and 6.5.1.C.3 for the previous calendar year shall be submitted prior to March 1 of each year.

1. A tabulation on an annual basis of the number of station, utility and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated man rem exposure according to work and job functions, ^{1/} e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totaling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions.
2. A summary description of facility changes, tests or experiments in accordance with the requirements of 10CFR50.59(b).
3. Pursuant to 3.8.A, a report of radioactive source leak testing. This report is required only if the tests reveal the presence of 0.005 microcuries or more of removable contamination.

D. Monthly Operating Report

Routine reports of operating statistics, shutdown experience, and a narrative summary of operating experience relating to safe operation of the facility, shall be submitted on a monthly basis to the individual designated in the current revision of Reg. Guide 10.1 no later than the tenth of each month following the calendar month covered by the report.

6.5.2 Reportable Occurrences

Reportable occurrences, including corrective actions and measures to prevent reoccurrence, shall be reported to the NRC. Supplemental reports may be required to fully describe final resolution of occurrence. In case of corrected or supplemental reports, a licensee event report shall be completed and reference shall be made to the original report date.

1/ This tabulation supplements the requirements of §20.407 of 10CFR Part 20.

A. Prompt Notification With Written Followup. The types of events listed below shall be reported as expeditiously as possible, but within 24 hours by telephone and confirmed by telegraph, mailgram, or facsimile transmission to the appropriate Regional Office, no later than the first working day following the event, with a written follow-up report within two weeks. The written follow-up report shall include, as a minimum, a completed copy of a licensee event report form. Information provided on the licensee event report form shall be supplemented, as needed, by additional narrative material to provide complete explanation of the circumstances surrounding the event.

1. Failure of the reactor protection system or other systems subject to limiting safety system settings to initiate the required protective function by the time a monitored parameter reaches the setpoint specified as the limiting safety system setting in the technical specifications or failure to complete the required protective function.

Note: Instrument drift discovered as a result of testing need not be reported under this item but may be reportable under items 6.5.2.A.5, 6.5.2.A.6 or 6.5.2.B.1 below.

2. Operation of the unit or affected systems when any parameter or operation subject to a limiting condition is less conservative than the least conservative aspect of the limiting condition for operation established in the technical specifications.

Note: If specified action is taken when a system is found to be operating between the most conservative and the least conservative aspects of a limiting condition for operation listed in the technical specifications, the limiting condition for operation is not considered to have been violated and need not be reported under this item, but it may be reportable under item 6.5.2.B.2 below.

3. Abnormal degradation discovered in fuel cladding, reactor coolant pressure boundary, or primary containment.

Note: Leakage of valve packing or gaskets within the limits for identified leakage set forth in technical specifications need not be reported under this item.

4. Reactivity anomalies, involving disagreement with the predicted value of reactivity balance under steady state conditions during power operation, greater than or equal to 1% $\Delta k/k$; a calculated reactivity balance indicating a shutdown margin less conservative than specified in the technical specifications; short-term reactivity increases that correspond to a reactor period of less than 5 seconds or, if sub-critical, an unplanned reactivity insertion of more than 0.5% $\Delta k/k$ or occurrence of any unplanned criticality.
5. Failure or malfunction of one or more components which prevents or could prevent, by itself, the fulfillment of the functional requirements of system(s) used to cope with accidents analyzed in the SAR.
6. Personnel error or procedural inadequacy which prevents or could prevent, by itself, the fulfillment of the functional requirements of systems required to cope with accidents analyzed in the SAR.

Note: For items 6.5.2.A.5 and 6.5.2.A.6 reduced redundancy that does not result in a loss of system function need not be reported under this section but may be reportable under items 6.5.2.B.2 and 6.5.2.B.3 below.

7. Conditions arising from natural or man-made events that, as a direct result of the event require plant shutdown, operation of safety systems, or other protective measures required by technical specifications.
8. Errors discovered in the transient or accident analyses or in the methods used for such analyses as described in the safety analysis report or in the bases for the technical specifications that have or could have permitted reactor operation in a manner less conservative than assumed in the analyses.
9. Performance of structures, systems, or components that requires remedial action or corrective measures to prevent operation in a manner less conservative than assumed in the accident analyses in the safety analysis report or technical specifications bases; or discovery during plant life of conditions not specifically considered in the safety analysis report or technical specifications that require remedial action or corrective measures to prevent the existence or development of an unsafe condition.

Note: This item is intended to provide for reporting of potentially generic problems.

- B. Thirty Day Written Reports. The reportable occurrences discussed below shall be the subject of written reports to the appropriate Regional Office within thirty days of occurrence of the event. The written report shall include, as a minimum, a completed copy of a licensee event report form. Information provided on the licensee event report form shall be supplemented, as needed, by additional narrative material to provide complete explanation of the circumstances surrounding the event.

1. Reactor protection system or engineered safety feature instrument settings which are found to be less conservative than those established by the technical specifications but which do not prevent the fulfillment of the functional requirements of affected systems.
2. Conditions leading to operation in a degraded mode permitted by a limiting condition for operation or plant shutdown required by a limiting condition for operation.

Note: Routine surveillance testing, instrument calibration, or preventative maintenance which require system configurations as described in items 6.5.2.B.1 and 6.5.2.B.2 need not be reported except where test results themselves reveal a degraded mode as described above.

3. Observed inadequacies in the implementation of administrative or procedural controls which threaten to cause reduction of degree of redundancy provided in reactor protection systems or engineered safety feature systems.
4. Abnormal degradation of systems other than those specified in item 6.5.2.A.3 above designed to contain radioactive material resulting from the fission process.

Note: Sealed sources or calibration sources are not included under this item. Leakage of valve packing or gaskets within the limits for identified leakage set forth in technical specifications need not be reported under this item.

6.5.3. Unique Reporting Requirements

Reports shall be submitted to the Director, Nuclear Reactor Regulation, USNRC, Washington, DC 20555, as follows:

A. Reports on the following areas shall be submitted as noted:

None.