

ATTACHMENT

Quad Cities Station Units 1 and 2

Proposed Changes to DPR-29 and

DPR-30 Technical Specifications

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TECHNICAL SPECIFICATIONS

APPENDIX A

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6.0 ADMINISTRATIVE CONTROLS

6.1 ORGANIZATION, REVIEW, INVESTIGATION, AND AUDIT

- A. The Station Superintendent shall have overall full-time responsibility for safe operation of the facility. During periods when the Station Superintendent is unavailable, he shall designate this responsibility to an established alternate who satisfies the ANSI N18.1 of March 8, 1971 experience requirements for plant manager.
- B. The organization chart of the corporate management which relates to the operation of this station and the normal functional organization chart for operation of the station is shown in Figure 6.1-1.
- C. The shift manning for the station shall be as shown in Figure 6.1-2. The Operating Assistant Superintendent, Operating Engineer, Shift Engineers, and Shift Foremen shall have a senior operating license. The Fuel Handling Foreman has a limited Senior Operating License. The General Manager Nuclear Division on the corporate level has responsibility for the Fire Protection Program. The Maintenance Assistant Superintendent will be responsible for implementation of the Fire Protection Program. A fire brigade of at least 5 members shall be maintained on-site at all times. This excludes the shift crew necessary for safe shutdown of the plant, and any personnel required for other essential functions during a fire emergency.
- D. Qualifications of the station management and operating staff, excluding the Rad-Chem supervisor and the Rad-Chem Technicians, shall meet minimum acceptable levels as described in ANSI N18.1, "Selection and Training of Nuclear Power Plant Personnel", dated March 8, 1971. The Rad-Chem Supervisor shall meet the requirements of radiation protection manager of Regulatory Guide 1.8. The individual filling the position of Administrative and Support Services Assistant Superintendent shall meet the minimum acceptable level for "Technical Manager" as described in Section 4.2.4 of ANSI N18.1-1971. The Shift Technical Advisor shall have a bachelors' 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.

The Radiation/Chemical Technicians shall have successfully completed the Station's established Radiation/Chemical Technician training program, and shall have at least a total of one year of general power plant, chemical, or radiation protection experience, or equivalent training. The Radiation/Chemical Technicians shall meet the criteria for "Individuals Qualified in Radiation Protection Procedures", as described in the D. L. Ziemann (NRC) letter to R. L. Bolger (CECo.) dated March 15, 1977. The

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Radiation/Chemical Technician training program consists of the following:

1. Satisfactory completion of a 12-week academic program. Topics of this course include mathematics, nuclear physics, radioactive decay, chemistry, sampling techniques, reactor coolant parameters, radiation exposure, shielding, biological effects of radiation exposure, radiation survey techniques, personnel monitoring, and emergency procedures.
 2. Satisfactory performance on a comprehensive examination following completion of academic training.
 3. On-Shift training under the supervision of a qualified Radiation/Chemical Technician.
- E. Retraining and replacement training of Station personnel shall be in accordance with ANSI N18.1, "Selection and Training of Nuclear Power Plant Personnel", dated March 8, 1971.
- A training program for the fire brigade shall be maintained under the direction of the Station Fire Marshal, and shall meet or exceed the requirements of Section 27 of the NFPA Code-1975 except that training sessions shall be at least quarterly.
- F. Retraining for licensed operators, senior operators, and senior operators (limited) shall be conducted at intervals not exceeding 2 years.
- G. The Review and Investigative Function and the Audit Function of activities affecting quality during facility operations shall be constituted and have the responsibilities and authorities outlined below:

1. The Supervisor of the Offsite Review and Investigative Function shall be appointed by the Director of Nuclear Safety. The Audit Function shall be the responsibility of the Manager of Quality Assurance and shall be independent of operations.

a. Offsite Review and Investigative Function

The Supervisor of the Offsite Review and Investigative Function shall: (1) provide directions for the review and investigative function and appoint a senior participant to provide appropriate direction, (2) select each participant for this function, (3) select a complement of more than one participant who collectively possess background and qualifications in the subject matter under review to provide comprehensive interdisciplinary review coverage under this function, (4) independently review and approve the findings and recommendations developed by personnel performing the review and investigative function, (5) approve and report in a timely manner all findings of noncompliance with NRC requirements to the Station.

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Superintendent, Division Vice President Nuclear Stations, Manager of Quality Assurance, and the Executive Vice President of Construction, Production, and Engineering. During periods when the Supervisor of Offsite Review and Investigative Function is unavailable, he shall designate this responsibility to an established alternate, who satisfies the formal training and experience requirements for the Supervisor of the Offsite Review and Investigative Function. The responsibilities of the personnel performing this function are stated below. The Offsite Review and Investigative Function shall review:

- 1) The safety evaluations for (1) changes to procedures, equipment, or systems as described in the safety analysis report and (2) tests or experiments completed under the provision of 10 CFR 50.59 to verify that such actions did not constitute an unreviewed safety question. Proposed changes to the Quality Assurance Program description shall be reviewed and approved by the Manager of Quality Assurance.
- 2) Proposed changes to procedures, equipment or systems which involve an unreviewed safety question as defined in 10 CFR 50.59.
- 3) Proposed tests or experiments which involve an unreviewed safety question as defined in 10 CFR 50.59.
- 4) Proposed changes in Technical Specifications or NRC operating licenses.
- 5) Noncompliance with NRC requirements, or of internal procedures, or instructions having nuclear safety significance.
- 6) Significant operating abnormalities or deviations from normal and expected performance of plant equipment that affect nuclear safety as referred to it by the Onsite Review and Investigative Function.
- 7) Reportable occurrences requiring 24-hour notification to the NRC.
- 8) All recognized indications of an unanticipated deficiency in some aspect of design or operation of safety-related structures, systems, or components.
- 9) Review and report findings and recommendations regarding all changes to the Generating Stations Emergency Plan prior to implementation of such change.
- 10) Review and report findings and recommendations regarding all items referred by the Technical Staff Supervisor, Station Superintendent, Division Vice President Nuclear Stations, and Manager of Quality Assurance.

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c. Authority

The Manager of Quality Assurance reports to the Vice Chairman and the Supervisor of the Offsite Review and Investigative Function reports to the Director of Nuclear Safety who reports to the Chairman and President. Either the Manager of Quality Assurance or the Director of Nuclear Safety has the authority to order unit shutdown or request any other action which he deems necessary to avoid unsafe plant conditions.

d. Records

- 1) Reviews, audits, and recommendations shall be documented and distributed as covered in 6.1.G.1.a and 6.1.G.1.b.
- 2) Copies of documentation, reports, and correspondence shall be kept on file at the station.

e. Procedures

Written administrative procedures shall be prepared and maintained for the offsite reviews and investigative functions described in

Specifications 6.1.G.1a. Those procedures shall cover the following:

- 1) Content and method of submission of presentations to the Supervisor of the Offsite Review and Investigative Function.
- 2) Use of committees and consultants.
- 3) Review and approval.
- 4) Detailed listing of items to be reviewed.
- 5) Method of (1) appointing personnel, (2) performing reviews, investigations, (3) reporting findings and recommendations of reviews and investigations, (4) approving reports, and (5) distributing reports.
- 6) Determining satisfactory completion of action required based on approved findings and recommendations reported by personnel performing the review and investigative function.

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f. Personnel

- 1) The persons, including consultants, performing the review and investigative function, in addition to the Supervisor the Offsite Review and Investigative Function, shall have expertise in one or more of the following disciplines as appropriate for the subject or subjects being reviewed and investigated:
 - a) nuclear power plant technology,
 - b) reactor operations,
 - c) utility operations,
 - d) power plant design,
 - e) reactor engineering,
 - f) radiological safety,
 - g) reactor safety analysis,
 - h) instrumentation and control,
 - i) metallurgy,
 - j) any other appropriate disciplines required by unique characteristics of the facility.

- 2) Individuals performing the Review and Investigative Function shall possess a minimum formal training and experience as listed below for each discipline.
 - a) Nuclear Power Plant Technology
Engineering graduate or equivalent with 5 years experience in the nuclear power field design and/or operation.
 - b) Reactor Operations
Engineering graduate or equivalent with 5 years experience in nuclear power plant operations.
 - c) Utility Operations
Engineering graduate or equivalent with at least 5 years of experience in utility operation and/or engineering.
 - d) Power Plant Design
Engineering graduate or equivalent with at least 5 years of experience in power plant design and/or operation.
 - e) Reactor Engineering
Engineering graduate or equivalent. In addition, at least 5 years of experience in nuclear plant engineering, operation, and/or graduate work in nuclear engineering or equivalent in reactor physics is required.

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f) Radiological Safety

Engineering graduate or equivalent with at least 5 years of experience in radiation control and safety.

g) Reactor Safety Analysis

Engineering graduate or equivalent, with at least 5 years of experience in nuclear engineering.

h) Instrumentation and Control

Engineering graduate or equivalent with at least 5 years of experience in instrumentation and control design and/or operation.

i) Metallurgy

Engineering graduate or equivalent with at least 5 years of experience in the metallurgical field.

3) The Supervisor of the Offsite Review and Investigative Function shall have experience and training which satisfy ANSI N18.1-1971 requirements for plant managers.

2. The Onsite Review and Investigative Function shall be supervised by the Station Superintendent.

a) Onsite Review and Investigative Function

The Station Superintendent shall: (1) provide direction for the Review and Investigative Function and appoint the Technical Staff Supervisor, or other comparably qualified individual as a senior participant to provide appropriate directions; (2) approve participants for this function; (3) assure that a complement of more than one participant who collectively possess background and qualifications in the subject matter under review are selected to provide comprehensive interdisciplinary review coverage under this function; (4) independently review and approve the findings and recommendations developed by personnel performing the Review and Investigative Function; (5) report all findings of noncompliance with NRC requirements, and provide recommendations to Division Vice President Nuclear Stations and the Supervisor of the Offsite Review and Investigative Function; and (6) submit to the Offsite Review and Investigative Function for concurrence in a timely manner, those items described in Specification 6.1.G.1.a which have been approved by the Onsite Review and Investigative Function.

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The responsibilities of the Personnel performing this function are stated below:

- 1) Review of (1) procedures required by Specification 6.2 and changes thereto and (2) any other proposed procedures or changes thereto as determined by the Plant Superintendent to affect nuclear safety.
- 2) Review of all proposed tests and experiments that affect nuclear safety.
- 3) Review of all proposed changes to the Technical Specifications.
- 4) Review of all proposed changes or modifications to plant systems or equipment that affect nuclear safety.
- 5) Investigation of all noncompliance with NRC requirements and shall prepare and forward a report covering evaluation and recommendations to prevent recurrence to Division Vice President Nuclear Stations and to the Supervisor of the Offsite Review and Investigative Function.
- 6) Review of facility operations to detect potential safety hazards.
- 7) Performance of special reviews and investigations and reports thereon as requested by the Supervisor of the Offsite Review and Investigative Function.
- 8) Review of the Station Security Plan and shall submit recommended changes to Division Vice President Nuclear Stations.
- 9) Review of the Emergency Plan and station implementing procedures and shall submit recommended changes to Division Vice President Nuclear Stations.
- 10) Review of reportable occurrences and actions taken to prevent recurrence.

b. Authority

The Technical Staff Supervisor is responsible to the Station Superintendent and shall make recommendations in a timely manner in all areas of review, investigation, and quality control phases of plant maintenance, operation, and administrative procedures relating to facility operations and shall have the

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authority to request the action necessary to ensure compliance with rules, regulations and procedures when in his opinion such action is necessary. The Station Superintendent shall follow such recommendations or select a course of action that is more conservative regarding safe operation of the facility. All such disagreements shall be reported immediately to Division Vice President Nuclear Stations and the Supervisor of the Offsite Review and Investigative Function.

c. Records

- 1) Reports, reviews, investigations, and recommendations shall be documented with copies to Division Vice President Nuclear Stations, the Supervisor of the Offsite Review and Investigative Function, the Station Superintendent, and the Manager of Quality Assurance.
- 2) Copies of all records and documentation shall be kept on file at the station.

d. Procedures

Written administrative procedures shall be prepared and maintained for conduct of the Onsite Review and Investigative Function. These procedures shall include the following:

- 1) Content and method of submission and presentation to the Station Superintendent, Division Vice President Nuclear Stations, and the Supervisor of the Offsite Review and Investigative Function.
- 2) Use of committees when necessary.
- 3) Review and approval.
- 4) Detailed listing of items to be reviewed.
- 5) Procedures for administration of the quality control activities.
- 6) Assignment of responsibilities.

e. Personnel

- 1) The personnel performing the Onsite Review and

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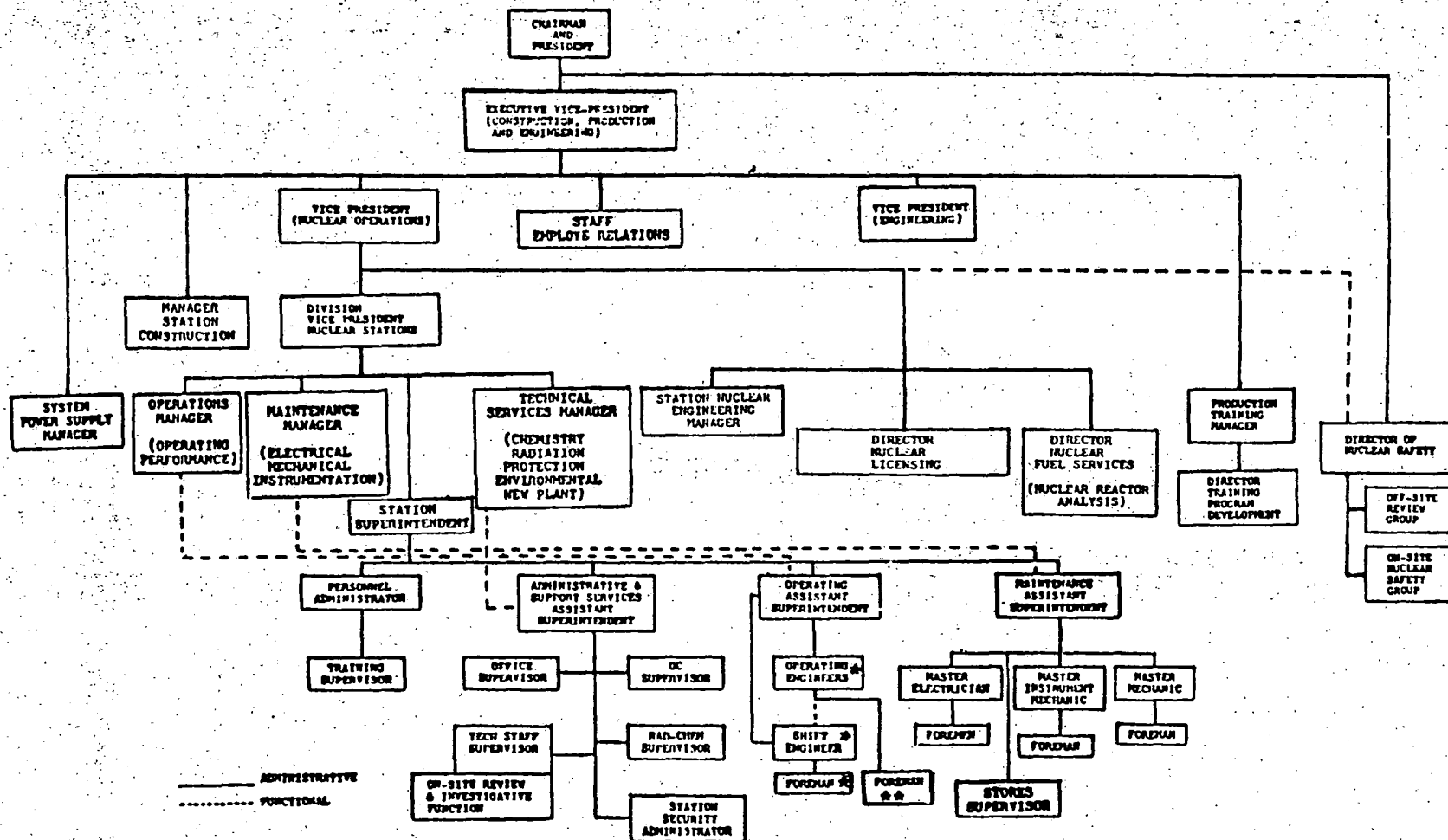
Investigative Function, in addition to the Station Superintendent, shall consist of persons having expertise in:

- a) nuclear power plant technology,
 - b) reactor operations,
 - c) reactor engineering,
 - d) radiological safety and chemistry,
 - e) instrumentation and control, and
 - f) mechanical and electric systems.
- 2) Personnel performing the Onsite Review and Investigative Function shall meet minimum acceptable levels as described in ANSI N18.1 1971, Sections 4.2 and 4.4.

H. Fire Protection Program

An independent fire protection and loss prevention program inspection and audit shall be performed at least once per 12 months utilizing either qualified offsite licensee personnel or an outside fire protection firm.

An inspection and audit of the fire protection and loss prevention program shall be performed by a qualified outside fire consultant at least once per 36 months.



- * - Senior Operator's License
 - ** - Fuel Handling Foreman has limited Senior Operator's license required only during Fuel Handling
- NOTES - The Maintenance Assistant Superintendent is responsible for implementing the Fire Protection Program
- One Assistant Superintendent or the Station Superintendent has a Senior Operator's license.

Figure 6.1-1
Corporate and
Station Organization

MINIMUM SHIFT MANNING CHART

CONDITION OF ONE UNIT (No Fuel in Second Unit)			
License Category	Initial Fuel Loading or During Refueling	Cold Shutdown or Refueling Shutdown	Above Cold Shutdown
Senior Operator License	2	1	1
Operator License	2	1	2
Rad. Prot. Man	1	1	1
Non-Licensed	(As Required)	1	2
Shift Technical Advisor	None Required	None Required	1
CONDITION OF SECOND UNIT (One Unit at Hot Shutdown or at Power)			
License Category	Initial Fuel Loading or During Refueling	Cold Shutdown or Refueling Shutdown	Above Cold Shutdown
Senior* Operator License	2	2	2
Operator* License	3	2	3
Rad. Prot. Man	1	1	1
Non-Licensed	3+ (As Required)	3	4
Shift Technical Advisor	1	1	1
CONDITION OF SECOND UNIT (One Unit at Cold Shutdown or Refueling Shutdown)			
License Category	Initial Fuel Loading or During Refueling	Cold Shutdown or Refueling Shutdown	Above Cold Shutdown
Senior* Operator License	2	1	2
Operator* License	3	2	2
Rad. Prot. Man	1	1	1
Non-Licensed	3+ (As Required)	3	3
Shift Technical Advisor	None Required	None Required	1

*Assumes each individual is licensed on each facility. During initial fuel loading or during refueling, one senior engineer (limited license) will supervise fuel handling.

† 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.

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6.2 PLANT OPERATING PROCEDURES

A. Detailed written procedures including applicable checkoff lists covering items listed below shall be prepared approved, and adhered to :

1. Normal startup, operation, and shutdown of the reactor, and other systems and components involving nuclear safety of the facility.
2. Refueling operations.
3. Actions to be taken to correct specific and foreseen potential malfunctions of systems or components including responses to alarms, suspected primary system leaks, and abnormal reactivity changes.
4. Emergency conditions involving potential or actual release of radioactivity -- "Generating Stations Emergency Plan" and station emergency and abnormal procedures.
5. Instrumentation operation which could have an effect on the safety of the facility.
6. Preventive and corrective maintenance operations which could have an effect on the safety of the facility.
7. Surveillance and testing requirements.
8. Tests and experiments.
9. Procedure to ensure safe shutdown of the plant.
10. Station Security Plan and implementation procedures.
11. Fire Protection Program implementation.
12. Working hours of the Shift Engineer, Station Control Room Engineer, Shift Foreman and the Nuclear Station Operator job classifications such that the heavy use of overtime is not routinely required.

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

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C. 1. Procedures for items identified in Specification 6.2-A and any changes to such procedures shall be reviewed and approved by the Operating Engineer and the Technical Staff Supervisor in the areas of operation, or fuel handling, and by the Maintenance Assistant Superintendent and Technical Staff Supervisor in the areas of plant maintenance and plant inspection. Procedures for items identified in Specification 6.2.B and any changes to such procedures shall be reviewed and approved by the Technical Staff Supervisor and the Rad Chem Supervisor. At least one person approving each of the above procedures shall hold a valid senior operator's license. In addition, these procedures and changes thereto, must have authorization by the Station Superintendent before being implemented.

2. Work and instruction type procedures which implement approved maintenance or modification procedures shall be approved and authorized by the Maintenance Assistant Superintendent where the written authority has been provided by the Station Superintendent. The "Maintenance/Modification Procedures" utilized for safety-related work shall be so approved only if procedures referenced in the "Maintenance/Modification Procedure" have been approved as required by 6.2.A. Procedures which do not fall within the requirements of 6.2.A or 6.2.B may be approved by the Department Heads.

D. Temporary changes to procedures 6.2.A and 6.2.B above may be made provided:

1. The intent of the original procedure is not altered.
2. The change is approved by two members of the plant management staff, at least one of whom holds a Senior Reactor Operator's License on the unit affected.
3. The change is documented, reviewed by the Onsite Review and Investigative Function and approved by the Station Superintendent within 14 days of implementation.

E. Drills of the emergency procedures described in Specification 6.2.A.4 shall be conducted at the frequency specified in the Generating Stations emergency plan. These drills will be planned so that during the course of the year, communication links are tested and outside agencies are contacted.

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6.3 ACTION TO BE TAKEN IN THE EVENT OF A REPORTABLE OCCURANCE IN PLANT
OPERATION

Any reportable occurrence shall be promptly reported to Division Vice President Nuclear Stations or his designated alternate. The incident shall be promptly reviewed pursuant to Specification 6.1 G.2.a(5), and a separate report for each reportable occurrence shall be prepared in accordance with the requirements of Specification 6.6.B.

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6.4 ACTION TO BE TAKEN IN THE EVENT A SAFETY LIMIT IS EXCEEDED

If a safety limit is exceeded, the reactor shall be shut down immediately and reactor operation shall not be resumed until authorized by the NRC. The conditions of shutdown shall be promptly reported to Division Vice President Nuclear Stations or his designated alternate. The incident shall be reviewed pursuant to Specifications 6.1.G.1.a and 6.1.G.2.a and a separate report for each occurrence shall be prepared in accordance with Specification 6.6.B.