



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

November 18, 1991

Docket Nos. 50-317
and 50-318

Mr. G. C. Creel
Vice President - Nuclear Energy
Baltimore Gas and Electric Company
Calvert Cliffs Nuclear Power Plant
MD Rts. 2 & 4
P. O. Box 1535
Lusby, Maryland 20657

Dear Mr. Creel:

SUBJECT: ISSUANCE OF AMENDMENTS FOR CALVERT CLIFFS NUCLEAR POWER PLANT,
UNIT NO. 1 (TAC NO. M81358) AND UNIT NO. 2 (TAC NO. M81359)

The Commission has issued the enclosed Amendment No. 165 to Facility Operating License No. DPR-53 and Amendment No. 145 to Facility Operating License No. DPR-69 for the Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2, respectively. The amendments consist of changes to the Technical Specifications in response to your application transmitted by letter dated August 27, 1991.

The amendments revise the Technical Specifications (TS) for both Units 1 and 2 to increase the specified snubber functional testing and service life monitoring surveillance intervals to accommodate the 24-month fuel cycles currently in use at Calvert Cliffs. This requested change is based on a history of low snubber failure rates and an effective snubber maintenance program. As requested in Generic Letter (GL) 91-04, "Changes In Technical Specification Surveillance Intervals To Accommodate a 24-month Fuel Cycle," the licensee provided an evaluation in support of the change which concludes that the effect on safety is small and does not invalidate any assumption in the plant licensing basis. Additionally, the TS Bases, including TS Basis 4.0.2, are updated to reflect the guidance provided in the recently issued GL 91-04 and support the requested changes.

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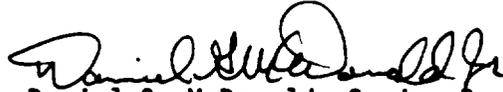
Mr. G. C. Creel

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November 18, 1991

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular biweekly Federal Register notice.

Sincerely,



Daniel G. McDonald, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 165 to DPR-53
2. Amendment No. 145 to DPR-69
3. Safety Evaluation

cc w/enclosures:
See next page

Mr. G. C. Creel
Baltimore Gas & Electric Company

Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 and 2

cc:

Mrs. Mary M. Krug, President
Calvert County Board of
Commissioners
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Prince Frederick, Maryland 20678

Public Service Commission of Maryland
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ATTN: Chief Engineer
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Ms. Patricia T. Birnie
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Mr. G. L. Detter, Director, NRM
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Lusby, Maryland 20657

Resident Inspector
c/o U.S. Nuclear Regulatory Commission
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Mr. Richard I. McLean
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Annapolis, Maryland 21401

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, Pennsylvania 19406

DATED: November 18, 1991

AMENDMENT NO. 165 TO FACILITY OPERATING LICENSE NO. DPR-53-CALVERT CLIFFS UNIT 1
AMENDMENT NO. 145 TO FACILITY OPERATING LICENSE NO. DPR-69-CALVERT CLIFFS UNIT 2

Docket File

NRC & Local PDRs

PDI-1 Reading

S. Varga, 14/E/4

J. Calvo, 14/A/4

R. Capra

C. Vogna

D. McDonald

C. Cowgill

OGC-WF

D. Hagan, 3302 MNBB

C. Liang, 8/E/23

G. Hill (8), P-137

Wanda Jones, P-130A

C. Grimes, 11/F/23

ACRS (10)

GPA/PA

OC/LFMB

Plant File

J. Norberg, 7/D/2

T. Dunning, 11/E/22

cc: Plant Service list



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

BALTIMORE GAS AND ELECTRIC COMPANY

DOCKET NO. 50-317

CALVERT CLIFFS NUCLEAR POWER PLANT UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 165
License No. DPR-53

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Baltimore Gas and Electric Company (the licensee) dated August 27, 1991, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-53 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 165, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert A. Capra

Robert A. Capra, Director
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: November 18, 1991



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

BALTIMORE GAS AND ELECTRIC COMPANY

DOCKET NO. 50-318

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 145
License No. DPR-69

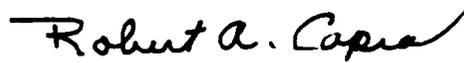
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Baltimore Gas and Electric Company (the licensee) dated August 27, 1991, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.2 of Facility Operating License No. DPR-69 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 145, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert A. Capra, Director
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: November 18, 1991

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 165 FACILITY OPERATING LICENSE NO. DPR-53

AMENDMENT NO. 145 FACILITY OPERATING LICENSE NO. DPR-69

DOCKET NOS. 50-317 AND 50-318

Revise Appendix A as follows:

<u>Remove Pages</u>	<u>Insert Pages</u>
3/4 7-26	3/4 7-26
3/4 7-26a*	3/4 7-26a*
3/4 7-26b	3/4 7-26b
B3/4 0-3	B3/4 0-3
B3/4 7-6	B3/4 7-6

*PG 3/4 7-26a did not change for DPR-53, but was an overleaf. The page did change for DRP-69.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

b. Visual Inspection Acceptance Criteria

Visual inspections shall verify (1) that there are no visible indications of damage or impaired **OPERABILITY**, and (2) that the snubber installation exhibits no visual indications of detachment from foundations or supporting structures. Snubbers which appear inoperable as a result of visual inspections may be determined **OPERABLE** for the purpose of establishing the next visual inspection interval, providing that (1) the cause of the rejection is clearly established, remedied and functionally tested for that particular snubber and for other snubbers that may be generically susceptible; or (2) the affected snubber is functionally tested in the as found condition and determined **OPERABLE** per Specification 4.7.8.1.d, as applicable. When the fluid port of a hydraulic snubber is found to be uncovered, the snubber shall be determined inoperable unless it can be determined **OPERABLE** via functional testing for the purpose of establishing the next visual inspection interval.

For the snubber(s) found inoperable, an engineering evaluation shall be performed on the component(s) which are supported by the snubber(s). The scope of this engineering evaluation shall be consistent with the licensee's engineering judgment and may be limited to a visual inspection of the supported component(s). The purpose of this engineering evaluation shall be to determine if the component(s) supported by the snubber(s) were adversely affected by the inoperability of the snubber(s) in order to ensure that the supported component remains capable of meeting the designed service.

c. Functional Tests

At least once per **REFUELING INTERVAL**, a representative sample of 10% of each type of snubbers in use in the plant shall be functionally tested either in place or in a bench test.* For each snubber that does not meet the functional test acceptance criteria of Specification 4.7.8.1.d, an additional 5% of that type snubber shall be functionally tested until no more failures are found or until all snubbers of that type have been functionally tested.

* The Steam Generator snubbers 1-63-13 through 1-63-28 need not be functionally tested until the refueling outage following June 30, 1985.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

Snubbers identified as "Especially Difficult to Remove" or in "High Exposure Zones" shall also be included in the representative sample.*

In addition to the regular sample, snubbers which failed the previous functional test shall be retested during the next test period. If a spare snubber has been installed in place of a failed snubber, then both the failed snubber (if it is repaired and installed in another position) and the spare snubber shall be retested during the next test period. Failure of these snubbers shall not entail functional testing of additional snubbers.

If any snubber selected for functional testing either fails to lock up or fails to move, i.e., frozen in place, the cause will be evaluated and if caused by manufacturer or design deficiency all generically susceptible snubbers of the same design subject to the same defect shall be functionally tested. This testing requirement shall be independent of the requirements stated above for snubbers not meeting the functional test acceptance criteria.

For the snubber(s) found inoperable, an engineering evaluation shall be performed on the component(s) which are supported by the snubber(s). The scope of this engineering evaluation shall be consistent with the licensee's engineering judgment and may be limited to a visual inspection of the supported component(s). The purpose of this engineering evaluation shall be to determine if the component(s) supported by the snubber(s) were adversely affected by the inoperability of the snubber(s) in order to ensure that the supported component remains capable of meeting the designed service.

d. Hydraulic Snubbers Functional Test Acceptance Criteria

The hydraulic snubber functional test shall verify that:

1. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.
2. Snubber bleed, or release rate, where required, is within the specified range in compression or tension. For snubbers specifically required to not displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

* Permanent or other exemptions from functional testing for individual snubbers in these categories may be granted by the Commission only if a justifiable basis for exemption is presented and/or snubber life destructive testing was performed to qualify snubber operability for all design conditions at either the completion of their fabrication or at a subsequent date.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

e. Snubber Service Life Monitoring

A record of the service life of each snubber, the date at which the designated service life commences and the installation and maintenance records on which the designated service life is based shall be maintained as required by Specification 6.10.2.m.

At least once per REFUELING INTERVAL**, the installation and maintenance records for each safety related snubber shall be reviewed to verify that the indicated service life has not been exceeded or will not be exceeded prior to the next scheduled snubber service life review.* If the indicated service life will be exceeded prior to the next scheduled snubber service life review, the snubber service life shall be reevaluated or the snubber shall be replaced or reconditioned so as to extend its service life beyond the date of the next scheduled service life review. This reevaluation, replacement, or reconditioning shall be indicated in the records.

* The provisions of Specification 4.0.2 are applicable.

** The first snubber service life review following Amendment No. 165 shall be performed within 18 months* of the previous review.

APPLICABILITY

BASES

mean that for one division the emergency power source must be **OPERABLE** (as must be the components supplied by the emergency power source) and all redundant systems, subsystems, trains, components and devices in the other division must be **OPERABLE** or likewise satisfy Specification 3.0.5 (i.e., be capable of performing their design functions and have an emergency power source **OPERABLE**). In other words, both emergency power sources must be **OPERABLE** and all redundant systems, subsystems, trains, components and devices in both divisions must also be **OPERABLE**. If these conditions are not satisfied, action is required in accordance with this specification.

In **MODES 5** or **6** Specification 3.0.5 is not applicable, and thus the individual **ACTION** statements for each applicable Limiting Condition for Operation in these **MODES** must be adhered to.

4.0.1 This specification provides that surveillance activities necessary to insure the Limiting Conditions for Operation are met and will be performed during the **OPERATIONAL MODES** or other conditions for which the Limiting Conditions for Operation are applicable. Provisions for additional surveillance activities to be performed without regard to the applicable **OPERATIONAL MODES** or other conditions are provided in the individual Surveillance Requirements. Surveillance Requirements for Special Test Exceptions need only be performed when the Special Test Exception is being utilized as an exception to an individual specification.

4.0.2 This specification establishes the limit for which the specified time interval for Surveillance Requirements may be extended. It permits an allowable extension of the normal surveillance interval to facilitate surveillance scheduling and consideration of plant operating conditions that may not be suitable for conducting the surveillance, e.g., transient conditions or other ongoing surveillance or maintenance activities. It also provides flexibility to accommodate the length of a fuel cycle for surveillances that are specified to be performed at least once each **REFUELING INTERVAL**. It is not intended that this provision be used repeatedly as a convenience to extend surveillance intervals beyond that specified for surveillances that are not performed once each **REFUELING INTERVAL**. Likewise, it is not the intent that **REFUELING INTERVAL** surveillances be performed during power operation unless it is consistent with safe plant operation. The limitation of Specification 4.0.2 is based on engineering judgment and the recognition that the most probable result of any particular surveillance being performed is the verification of conformance with the Surveillance Requirements. This provision is sufficient to ensure that the reliability ensured through surveillance activities is not significantly degraded beyond that obtained from the specified surveillance interval.

PLANT SYSTEMS

BASES

effect or degradation on the supported component or system. Operation may continue indefinitely if an engineering review and evaluation can document within 72 hours that the equipment connected to the snubber can continue to perform its required function(s) with the snubber inoperable. If the review and evaluation cannot justify that the supported equipment will perform its required function(s), the equipment must be declared inoperable and the applicable action requirements met.

The specification allows inspection intervals to be compatible with a 24 month fuel cycle, up to and including an increase to every other refueling outage. To provide assurance of snubber functional reliability, a representative sample of the installed snubbers of each type* will be functionally tested during plant shutdowns at **REFUELING INTERVALS**. Observed failures of these sample snubbers shall require functional testing of additional units.

The service life of a snubber is evaluated via manufacturer input and information through consideration of the snubber service conditions and associated installation and maintenance records (newly installed snubber, seal replaced, spring replaced, in high radiation area, in high temperature area, etc). The requirement to monitor the snubber service life is included to ensure that the snubbers periodically undergo a performance evaluation in view of their age and operating conditions. The service life program is designed to uniquely reflect the conditions at Calvert Cliffs. The criteria for evaluating service life shall be determined, and documented, by the licensee. Records will provide statistical bases for future consideration of snubber service life. The requirements for the maintenance of records and the snubber service life review are not intended to affect plant operation.

3/4.7.9 SEALED SOURCE CONTAMINATION

The limitation on removable contamination for sources requiring leak testing, including alpha emitters, is based on 10 CFR 70.39(c) limits for plutonium. This limitation will ensure that leakage from byproduct, source, and special nuclear material sources will not exceed allowable intake values.

3/4.7.10 WATERTIGHT DOORS

This specification is provided to ensure the protection of safety related equipment from the effects of water or steam escaping from ruptured pipes or components in adjoining rooms.

* Small bore (≤ 8 ") and large bore (> 8 ") hydraulic snubbers are examples of different types of snubbers.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

b. Visual Inspection Acceptance Criteria

Visual inspections shall verify (1) that there are no visible indications of damage or impaired **OPERABILITY**, and (2) that the snubber installation exhibits no visual indications of detachment from foundations or supporting structures. Snubbers which appear inoperable as a result of visual inspections may be determined **OPERABLE** for the purpose of establishing the next visual inspection interval, providing that (1) the cause of the rejection is clearly established, remedied and functionally tested for that particular snubber and for other snubbers that may be generically susceptible; or (2) the affected snubber is functionally tested in the as found condition and determined **OPERABLE** per Specification 4.7.8.1.d, as applicable. When the fluid port of a hydraulic snubber is found to be uncovered, the snubber shall be determined inoperable unless it can be determined **OPERABLE** via functional testing for the purpose of establishing the next visual inspection interval.

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* Effective at 11:59 p.m. on May 17, 1989 or upon reaching 199.9°F average reactor coolant system (RCS) temperature during initial RCS heatup following the Unit 2 Cycle 9 refueling outage, whichever occurs first. Replaces page 3/4 7-26(t).

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

Snubbers identified as "Especially Difficult to Remove" or in "High Exposure Zones" shall also be included in the representative sample.*

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PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

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* The provisions of Specification 4.0.2 are applicable.

** The first snubber service life review following Amendment No. 145 shall be performed within 18 months* of the previous review.

APPLICABILITY

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4.0.2 This specification establishes the limit for which the specified time interval for Surveillance Requirements may be extended. It permits an allowable extension of the normal surveillance interval to facilitate surveillance scheduling and consideration of plant operating conditions that may not be suitable for conducting the surveillance, e.g., transient conditions or other ongoing surveillance or maintenance activities. It also provides flexibility to accommodate the length of a fuel cycle for surveillances that are specified to be performed at least once each **REFUELING INTERVAL**. It is not intended that this provision be used repeatedly as a convenience to extend surveillance intervals beyond that specified for surveillances that are not performed once each **REFUELING INTERVAL**. Likewise, it is not the intent that **REFUELING INTERVAL** surveillances be performed during power operation unless it is consistent with safe plant operation. The limitation of Specification 4.0.2 is based on engineering judgment and the recognition that the most probable result of any particular surveillance being performed is the verification of conformance with the Surveillance Requirements. This provision is sufficient to ensure that the reliability ensured through surveillance activities is not significantly degraded beyond that obtained from the specified surveillance interval.

PLANT SYSTEMS

BASES

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The specification allows inspection intervals to be compatible with a 24 month fuel cycle, up to and including an increase to every other refueling outage. To provide assurance of snubber functional reliability, a representative sample of the installed snubbers of each type* will be functionally tested during plant shutdowns at **REFUELING INTERVALS**. Observed failures of these sample snubbers shall require functional testing of additional units.

The service life of a snubber is evaluated via manufacturer input and information through consideration of the snubber service conditions and associated installation and maintenance records (newly installed snubber, seal replaced, spring replaced, in high radiation area, in high temperature area, etc). The requirement to monitor the snubber service life is included to ensure that the snubbers periodically undergo a performance evaluation in view of their age and operating conditions. The service life program is designed to uniquely reflect the conditions at Calvert Cliffs. The criteria for evaluating service life shall be determined, and documented, by the licensee. Records will provide statistical bases for future consideration of snubber service life. The requirements for the maintenance of records and the snubber service life review are not intended to affect plant operation.

3/4.7.9 SEALED SOURCE CONTAMINATION

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* Small bore (≤ 8 ") and large bore (> 8 ") hydraulic snubbers are examples of different types of snubbers.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 165 TO FACILITY OPERATING LICENSE NO. DPR-53

AND AMENDMENT NO. 145 TO FACILITY OPERATING LICENSE NO. DPR-69

BALTIMORE GAS AND ELECTRIC COMPANY

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2

DOCKET NOS. 50-317 AND 50-318

1.0 INTRODUCTION

By letter dated August 27, 1991, the Baltimore Gas and Electric Company (the licensee) submitted a request for changes to the Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2, Technical Specifications (TS). The requested changes would revise the TS to increase the specified snubber functional testing and service life monitoring surveillance intervals from 18-months to 24-months to accommodate the 24-month fuel cycles currently in use at Calvert Cliffs. This requested change is based on a history of low snubber failure rates and an effective snubber maintenance program. As requested in Generic Letter (GL) 91-04, dated April 2, 1991, "Changes In Technical Specification Surveillance Intervals To Accommodate a 24-month Fuel Cycle," the licensee provided an evaluation in support of the change which concludes that the effect on safety is small and does not invalidate any assumption in the plant licensing basis. Additionally, the licensee requested that the Bases be updated, including TS Basis 4.0.2, to reflect the guidance provided in the recently issued GL 91-04 and support the requested changes.

2.0 EVALUATION

Subsequent to increasing the refueling interval from 18-months to 24-months, the licensee requested amendments to the TS of both units which added the definition "Refueling Interval - at least once per 24-months" to Table 1.2 of TS Definition 1.22, "Frequency Notation." The definition for "R - at least once per 18-months" remains. This is necessary to assure the safety-related systems and components which have not yet been approved for 24-month surveillance intervals, have their surveillances performed at the required 18-months intervals. This is accomplished during scheduled mid-cycle surveillance/maintenance outages until all the safety-related systems and components have been approved for the 24-month refueling interval. The Commission issued Amendment No. 133 to Facility Operating License No. DPR-53 and Amendment No. 114 to Facility Operating License No. DPR-69 for Units Nos. 1 and 2, respectively, by letter dated December 21, 1988, which included the definition for a 24-month Refueling Interval.

The changes were consistent with the current guidance in GL 91-04 and, therefore, no other changes are necessary in relation to defining the existing surveillance intervals in the TS to support the requested changes to the snubber functional testing and service life monitoring surveillance intervals.

Safety-related hydraulic snubbers are provided as movement restraints on plant safety systems to provide protection of structural integrity during and following an event involving dynamic loading, yet allows for thermal movement during normal system temperature fluctuations and transients. The amendment request is to extend the functional testing and service life monitoring surveillance frequencies from 18-month intervals to 24-month intervals. Specifically, the requested changes are: a) TS Surveillance Requirement 4.7.8.1c would be changed from once per 18-months to require functional testing once per refueling interval and the term "during shutdown" would be deleted to avoid any confusion with defined conditions or requirements during Hot Shutdown or Cold Shutdown, b) TS 4.7.8.1.e would also be changed from once per 18-months to require service life monitoring once per refueling interval; and, c) the TS Bases are modified to reflect the requested changes, including the Basis for TS 4.0.2, to reflect the proposed wording of GL 91-04.

As noted in the licensee's amendment request, Calvert Cliffs Unit 1 contains 108 accessible snubbers and 218 snubbers which are inaccessible during power operation. Unit 2 similarly contains 109 accessible snubbers and 172 inaccessible snubbers. The licensee's review of the historical failure rate data for the hydraulic snubbers installed at the Calvert Cliffs facility has indicated that the snubbers are very reliable. The visual inspections of 6,881 snubber at the facility have only identified 19 failures which is a failure rate of less than 0.28%. Only seven of 614 snubbers which have been functionally tested were considered failures which is a failure rate of about 1.14%.

The licensee has also compared the failure rate at the Calvert Cliffs facility with that of industry. The overall failure rate reported since 1975, based on 35,850 visual hydraulic snubber inspections, is 870 failed or degraded which is less than 2.5%. The results of 10,000 hydraulic snubber functional tests were approximately 1200 failures which is a failure rate of about 12.1%.

The staff has determined that the increase in the surveillance interval from 18-months to 24-months for the functional testing specified in TS 4.7.8.1.c of the hydraulic snubbers is acceptable. This determination is based on the historical data detailed above which indicates the overall reliability of the snubbers at the Calvert Cliffs facility is essentially one order of magnitude above the industry average, provides reasonable assurance that the initial assumptions in the plant licensing basis remains valid, and the overall impact on safety is determined to be small. We further have determined that the deletion of the term "during shutdown" is acceptable in that the term "refueling interval" has already been defined in the existing TS and the requested deletion results in a clearer and more precise TS requirement.

The licensee's service life monitoring program provides for a periodic snubber performance evaluation to determine which snubbers would reach the end of their expected service life prior to the next review. These snubbers are replaced or refurbished to extend their service life. Extending the monitoring program intervals from 18 to 24 months would essentially be an administrative change to include the new interval length into the program. The requested change assures that the first of the 24-month evaluations will be performed within 18-months of the last evaluation.

The staff has determined that the increase in the service life monitoring program specified in TS 4.7.8.1.e from 18-months to 24-months is acceptable. This conclusion is based on the overall reliability of the installed snubbers, as previously discussed, and that the first 24-month evaluation will be performed within 18-months of the latest evaluation to provide assurance of a continuous monitoring program. Thus, the overall impact on safety resulting from this requested change is determined to be small and provides reasonable assurance that the initial assumptions in the plants licensing bases remains valid.

The requested changes to TS Bases 3/4.7.8 reflect the change from the 18-month surveillance interval to a 24-month interval and specify the surveillances be performed during the previously defined "Refueling Interval." The requested changes to TS Bases 4.0.2 reflect the recommended wording in GL 91-04.

We have determined that the requested TS Bases changes are consistent with the recommendations of GL 91-04, reflect the intent of the guidance provided in the GL, and support the requested TS surveillance interval changes and are, therefore, acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Maryland State official was notified of the proposed issuance of the amendments. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes to the surveillance requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (56 FR 47229). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors:

T. Dunning

D. McDonald

Date: November 18, 1991

November 18, 1991

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular biweekly Federal Register notice.

Sincerely,

Original Signed By:

Daniel G. McDonald, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 165 to DPR-53
- 2. Amendment No. 145 to DPR-69
- 3. Safety Evaluation

cc w/enclosures:
See next page

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