



**Constellation
Nuclear**

**Calvert Cliffs
Nuclear Power Plant**

*A Member of the
Constellation Energy Group*

October 31, 2000

U. S. Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: Document Control Desk

SUBJECT: Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 & 2; Docket Nos. 50-317 & 50-318
License Amendment Request: Revision to Technical Specification Definition of
Response Time Testing

REFERENCES:

- (a) Letter from Mr. C. H. Cruse (BGE) to Document Control Desk (NRC), dated January 25, 2000, same subject
- (b) Letter from Mr. S. A. Richards (NRC) to Mr. R. Phelps (CEOG), dated July 24, 2000, Acceptance for Referencing of Combustion Engineering Owners Group Topical Report CE NPSD-1167, Revision 2, "Elimination of Pressure Sensor Response Time Testing Requirements," May 2000 (TAC No. MA6010)

In Reference (a), we requested a change to our Technical Specifications, which would redefine response time testing for both the Reactor Protective System and the Engineered Safety Features Actuation System. This request was based on technical justification provided in Combusting Engineering, Inc. (CE) NPSD-1167, Revision 1, "Elimination of Pressure Sensor Response Time Testing Requirements – Combustion Engineering Owners Group Task 1070." We also provided marked-up Technical Specification pages to reflect this change.

The Nuclear Regulatory Commission has approved CE NPSD-1167, Revision 2, on July 24, 2000 for use by CE licensees in support of similar requests. Calvert Cliffs meets the requirements and the general limitations described in the safety analysis (Reference b). Therefore, we are amending our license amendment request to change our technical basis from CE NPSD-1167, Revision 1, to CE NPSD-1167, Revision 2. All other portions of our discussion remain the same.

Reference (b) also noted that the marked-up Technical Specifications provided in CE NPSD-1167 were not approved and new Technical Specification wording will be submitted via the Nuclear Energy Institute (NEI) Technical Specification Task Force. The new Technical Specification wording has been submitted to the NRC as TSTF-368. Attachment (1) provides our marked up Technical Specification pages that now conform to TSTF-368. These pages replace the ones provided in Reference (a). Technical

A001

ATTACHMENT (1)

TECHNICAL SPECIFICATIONS

MARKED-UP PAGES

1.1-3

1.1-5

1.1 Definitions

DOSE EQUIVALENT I-131

DOSE EQUIVALENT I-131 shall be that concentration of I-131 (microcuries/gram) that alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134, and I-135 actually present. The thyroid dose conversion factors used for this calculation shall be those listed in Table III of TID-14844, AEC, 1962, "Calculation of Distance Factors for Power and Test Reactor Sites."

 \bar{E} -AVERAGE DISINTEGRATION ENERGY

\bar{E} shall be the average (weighted in proportion to the concentration of each radionuclide in the reactor coolant at the time of sampling) of the sum of the average beta and gamma energies per disintegration (in MeV) for isotopes, other than iodines, with half lives > 15 minutes, making up at least 95% of the total non-iodine activity in the coolant.

ENGINEERED SAFETY FEATURE (ESF) RESPONSE TIME

The ESF RESPONSE TIME shall be that time interval from when the monitored parameter exceeds its ESF actuation setpoint at the channel sensor until the ESF equipment is capable of performing its safety function (i.e., the valves travel to their required positions, pump discharge pressures reach their required values, etc.). Times shall include diesel generator starting and sequence loading delays, where applicable. The response time may be measured by means of any series of sequential, overlapping, or total steps so that the entire response time is measured. Δ

In lieu of measurement, response time may be verified for selected components provided that the components and methodology for verification have been previously reviewed and approved by the NRC.

L_a

The maximum allowable containment leakage rate, L_a , shall be 0.20% of containment air weight per day at the calculated peak containment pressure (P_a).

1.1 Definitions

capable of performing its specified safety function(s) and when all necessary attendant instrumentation, controls, normal or emergency electrical power, cooling and seal water, lubrication, and other auxiliary equipment that are required for the system, subsystem, train, component, or device to perform its specified safety function(s) are also capable of performing their related support function(s).

PHYSICS TESTS

PHYSICS TESTS shall be those tests performed to measure the fundamental nuclear characteristics of the reactor core and related instrumentation. These tests are:

- a. Described in Chapter 13, Initial Tests and Operation of the Updated Final Safety Analysis Report;
- b. Authorized under the provisions of 10 CFR 50.59; or
- c. Otherwise approved by the Nuclear Regulatory Commission.

In lieu of measurement, response time may be verified for selected components provided that the components and methodology for verification have been previously reviewed and approved by the NRC.

RATED THERMAL POWER (RTP)

RTP shall be a total reactor core heat transfer rate to the reactor coolant of 2700 MWt.

REACTOR PROTECTIVE SYSTEM (RPS) RESPONSE TIME

The RPS RESPONSE TIME shall be that time interval from when the monitored parameter exceeds its RPS trip setpoint at the channel sensor until electrical power to the CEAs drive mechanism is interrupted. The response time may be measured by means of any series of sequential, overlapping, or total steps so that the entire response time is measured. ▲

SHUTDOWN MARGIN (SDM)

SDM shall be the instantaneous amount of reactivity by which the reactor is subcritical or would be subcritical from its present condition