

ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8811210156 DOC. DATE: 88/11/09 NOTARIZED: NO DOCKET #
 FACIL: STN-50-528 Palo Verde Nuclear Station, Unit 1, Arizona Publi 05000528
 STN-50-529 Palo Verde Nuclear Station, Unit 2, Arizona Publi 05000529
 STN-50-530 Palo Verde Nuclear Station, Unit 3, Arizona Publi 05000530
 AUTH. NAME AUTHOR AFFILIATION
 KARNER, D.B. Arizona Nuclear Power Project (formerly Arizona Public Serv
 RECIP. NAME RECIPIENT AFFILIATION
 Document Control Branch (Document Control Desk)

SUBJECT: Application for amends to Licenses NPF-41, NPF-51 & NPF-74,
 revising Tech Spec 3.4.5. "RCS Leakage Detection Sys."

DISTRIBUTION CODE: A009D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 6+4
 TITLE: OR/Licensing Submittal: Appendix I

NOTES: Standardized plant. 05000528
 Standardized plant. 05000529
 Standardized plant. 05000530

RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
PD5 LA	1 0	PD5 PD	5 5
CHAN, T	1 1	DAVIS, M	1 1
DAVIS, M.J.	1 1		

INTERNAL: ACRS	3 3	ARM/DAF/LFMB	1 0
NRR/DREP DIR10E	1 1	NRR/DREP/RPB 10	2 2
NRR/PMAS/PMSB12	1 1	NUDOCS-ABSTRACT	1 1
OGC/HDS1	1 0	REG FILE 01	1 1

EXTERNAL: EG&G SIMPSON, F	2 2	LPDR	1 1
NRC PDR	1 1		

NOTES: 1 1

Cont: 559091443
 w/check
 \$150
 #007162

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK,
 ROOM P1-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION
 LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 25 ENCL 22

A/A 2



Arizona Nuclear Power Project

P.O. BOX 52034 • PHOENIX, ARIZONA 85072-2034

161-01468-DBK/JRP
November 9, 1988

Docket Nos. STN 50-528/529/530

Document Control Desk
U. S. Nuclear Regulatory Commission
Mail Station PL-137
Washington, D.C. 20555

Dear Sirs:

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2, and 3
Technical Specification Amendment Request
Reactor Coolant System Leakage Detection System
File: 88-F-005-419.05; 88-056-026

This letter is provided to request an amendment to the PVNGS Units 1, 2 and 3 Technical Specifications, Section 3.4.5.1; RCS Leakage Detection System. Currently, the Technical Specifications are based on the assumption that there are three independent leakage detection systems. In reality, the containment atmosphere particulate radioactivity monitoring system and the containment atmosphere gaseous radioactivity monitoring system are a common system sharing a common sample point, sample lines, valves and power supply. The changes to Section 3.4.5.1 clarify that primary system leakage is monitored by two independent techniques and not three.

Enclosed within this change request are:

- A. Description of Amendment Request.
- B. Purpose of the Technical Specification.
- C. Need for the Technical Specification Change.
- D. Basis for No Significant Hazards Consideration.
- E. Safety Analysis of the Proposed Change Request.
- F. Environmental Impact Consideration Determination.
- G. Marked-up Technical Specification Change Pages.

8811210156 881109
PDR ADOCK 05000528
P PDC

Cont No. 559091443

*A009 w/checked
11/150
007162*

Pursuant to 10CFR50.91(b)(1), and by copy of this letter and attachments, we have notified the Arizona Radiation Regulatory Agency of this request for a Technical Specification change. In accordance with 10CFR170.12(c), enclosed with this amendment request is the application fee of \$150.

At this time, we would like to request that this amendment become effective within 45 days of issuance. Should you have any questions, please feel free to call.

Very truly yours,



D. B. Karner
Executive Vice President

DBK/JRP/dlm
Attachment

cc: G. W. Knighton (all w/a)
M. J. Davis
T. L. Chan
J. B. Martin
T. J. Polich
C. E. Tedford

ATTACHMENT

A. DESCRIPTION OF AMENDMENT REQUEST

The proposed license amendment would change Technical Specification Section 3.4.5.1, RCS leakage detection system, to clarify that primary system leakage is monitored by two independent techniques, not three. Airborne radioactivity is monitored using the particulate and/or gaseous monitor and the liquid volumes are monitored using the sump level and/or flow monitoring system.

Currently, the Technical Specifications list three independent detection systems; containment atmosphere particulate radioactivity monitoring system, containment sump level and flow monitoring system, and the containment atmosphere gaseous radioactivity monitoring system. The containment atmosphere particulate system and the gaseous system are a common system utilizing the same power source, sample point and various other common components.

The proposed action statement for inoperable containment atmosphere gaseous radioactivity and containment atmosphere particulate radioactivity would allow continued operation for up to 30 days provided the following actions were taken. Gaseous and/or particulate grab samples of the containment atmosphere are obtained at least once per 12 hours and analyzed within the subsequent 3 hours and the containment sump level and flow monitoring system is available.

The proposed action statement for inoperable containment sump level and flow monitoring system would allow continued operation for up to 30 days provided the containment atmosphere gaseous radioactivity monitoring and the containment atmosphere particulate radioactivity monitoring system are operable.

B. PURPOSE OF THE TECHNICAL SPECIFICATION

The Reactor Coolant System leakage detection systems are provided to monitor and detect leakage from the reactor coolant pressure boundary. Containment sump flow is provided by monitoring the rate of sump level increase prior to the sump being pumped down, and is alarmed at the equivalent of one gpm leakage into the sump. These detection systems are consistent with the recommendations of Regulatory Guide 1.45 which states in part "The source of reactor coolant leakage should be identifiable to the extent practical."

C. NEED FOR THE TECHNICAL SPECIFICATION AMENDMENT

The Technical Specification amendment is needed to clarify that primary system leakage detection at PVNGS is monitored by two independent techniques and not three. Two of the three listed are a common system sharing common components. The only independence is that there are two detectors with associated electronics; one looking at a particulate filter and the other at a gas chamber. Should one of the common components in the system fail, both systems will fail, thereby placing

the unit in an action statement requiring plant shutdown within six hours. Plant shutdown is unnecessary in this case, since adequate capability still exists to detect primary system leakage. The containment sump monitoring capabilities are still available and containment atmosphere airborne levels will be determined using grab samples.

The intent of Regulatory Guide 1.45 is met by employing separate detection methods for monitoring airborne radioactivity and sump level. Airborne radioactivity is monitored using the containment atmosphere gaseous and particulate radioactivity monitoring system, and the liquid volumes are monitored using the sump level and flow monitoring system. The loss of one technique is acceptable for 30 days provided the other technique is available.

The proposed changes to the Technical Specifications allows greater flexibility with both the particulate and the gaseous radioactivity monitors inoperable. The thirty day action statement allows adequate time to repair or replace the inoperable components. The proposed action statement for the inoperable airborne monitors also requires more frequent grab sampling (once every twelve hours as opposed to once every twenty-four hours) and further clarifies the analysis requirements. The proposed changes require that analysis for the sample be performed within the subsequent three hours, which is more restrictive than the current Technical Specifications.

D. BASIS FOR NO SIGNIFICANT HAZARDS CONSIDERATION

1. The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10CFR50.92. A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with a proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety. A discussion of these standards as they relate to the amendment request follows:

Standard 1 -- Involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed change does not include a significant increase in the probability or consequences of an accident previously evaluated because the proposed change does not alter the current design or operation of the facility. The revised operability requirements will not provide significant degradation in the Reactor Coolant System leakage detection capability. These changes do not adversely affect the consequences of the design basis accidents. Therefore, the proposed change will not involve a significant increase in the probability or consequences of an accident previously evaluated.



Standard 2 -- Create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed change will not create the possibility of a new or different kind of accident from any accident previously evaluated. Since there are no changes in the way the plant is being operated, the potential for an unanalyzed accident is not created. No new failure modes are introduced. Therefore, the proposed change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

Standard 3 -- Involve a significant reduction in a margin of safety.

The proposed change does not involve a significant reduction in a margin of safety. The proposed changes do not have any adverse impact on the containment integrity. Since the proposed changes do not affect the consequences of any accident previously analyzed, there is no reduction in the margin of safety.

2. The proposed change matches two of the examples given in 51FR7751 of amendments that do not include a significant hazards consideration. The proposed changes are enveloped by example (ii), a change that constitutes an additional limitation, restriction, or control not presently included in the Technical Specifications, e.g., a more stringent action statement. The proposed changes require that grab samples of the containment atmosphere be obtained at least once per twelve hours and analyzed within the next three hours. This requirement is more restrictive than the current Technical Specification which requires that grab samples of the containment atmosphere be obtained and analyzed at least once per twenty-four hours. And example (ix) other, the change will clarify that RCS leakage is monitored by two independent techniques, not three. Containment atmosphere particulate radioactivity monitoring system and the containment atmosphere gaseous radioactivity monitoring system are a common system sharing a common sample point. The only independence is that there are two detectors with associated electronics, one looking at a particulate filter and the other at a gas chamber. The second monitoring system being the containment sump level and the flow monitoring system.

E. SAFETY ANALYSIS OF THE PROPOSED CHANGE REQUEST

The proposed Technical Specification change will not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR. The revised operability requirements will not provide significant degradation in the Reactor Coolant System leakage detection capability. These changes do not adversely affect the consequences of the design basis accidents. Therefore, it is concluded that previously analyzed accidents are not affected.

The proposed Technical Specification change will not create the possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR. No physical changes are being made to the facility. Since there are no changes in the way the plant is operated, the potential for an unanalyzed accident is not created, no new failure modes are introduced.

The proposed Technical Specification change will not reduce the margin of safety as defined in the basis for any Technical Specification. The proposed changes do not have any adverse impact on containment integrity. Since the proposed changes do not affect the consequences of any accident previously analyzed, there is no reduction in the margin of safety.

F. ENVIRONMENTAL IMPACT CONSIDERATION DETERMINATION

The proposed Technical Specification change request does not involve an unreviewed environmental question because operation of PVNGS Units 1, 2 and 3 in accordance with this change would not:

1. Result in a significant increase in any adverse environmental impact previously evaluated in the Final Environmental Statement (FES) as modified by the staffs testimony to the Atomic Safety and Licensing Board, Supplements to the FES, Environmental Impact Appraisals, or in any decisions of the Atomic Safety Licensing Board; or
2. Result in a significant change in effluents or power levels; or
3. Result in matters not previously reviewed in the licensing basis for PVNGS which may have a significant environmental impact.

G. MARKED-UP TECHNICAL SPECIFICATION PAGES

(See Attached Page 3/4 4-18).