



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 56 TO FACILITY OPERATING LICENSE NO. NPF-41  
AMENDMENT NO. 43 TO FACILITY OPERATING LICENSE NO. NPF-51  
AND AMENDMENT NO. 29 TO FACILITY OPERATING LICENSE NO. NPF-74  
ARIZONA PUBLIC SERVICE COMPANY, ET AL.  
PALO VERDE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3  
DOCKET NOS. STN 50-528, STN 50-529, AND STN 50-530

1.0 INTRODUCTION

By letter dated April 30, 1991, the Arizona Public Service Company submitted a request for changes to the Technical Specifications (TS) for the Palo Verde Nuclear Generating Station, Unit Nos. 1, 2, and 3 (Appendix A to Facility Operating License Nos. NPF-41, NPF-51, NPF-74, respectively). The Arizona Public Service Company submitted this request on behalf of itself, the Salt River Project Agricultural Improvement and Power District, Southern California Edison Company, El Paso Electric Company, Public Service Company of New Mexico, Los Angeles Department of Water and Power, and Southern California Public Power Authority (the licensees). The proposed changes would add a footnote to TS Table 4.3.8, Radioactive Gaseous Effluent Monitoring Instrumentation Surveillance Requirements, to allow the use of light-emitting diodes (LEDs) as check sources for four noble gas activity monitors. The changes requested by the licensees would allow the use of built-in LED check sources as an acceptable method for verifying a qualitative channel response to assess detector operability for four gas activity monitors. The four monitors that are the subject of this amendment are (1) Gaseous Radwaste System Noble Gas Activity Monitor (RU-12), (2) Condenser Evacuation System Noble Gas Activity Monitor (RU-141), (3) Plant Vent System Noble Gas Activity Monitor (RU-143), and (4) Fuel Building Ventilation System Noble Gas Activity Monitor (RU-145).

2.0 EVALUATION

The purpose of requiring periodic source checks of radiation monitoring instrumentation is to provide a periodic qualitative assessment of detector operability. The proposal by the licensees to use the LED check source is consistent with the detector vendor's position that the LED check source, when activated by an operator, makes it possible to confirm the detector's operability. In assessing the adequacy of the use of an LED check source, the licensees identified potential detector failure mechanisms and determined that the only credible failure mechanisms are failures of the active detector components (photo-multiplier tube, preamplifier, cabling, microcomputer, and high voltage power supply). The licensees further noted that any of the identified credible failure mechanisms would be detected equally well by either the internal LED or the radioactive source check method.

The staff has reviewed the information provided by the licensees and finds that the built-in LED check source provides an acceptable alternative method for the qualitative assessment of channel response for the four identified noble gas activity monitors. The Technical Specification changes proposed by the licensees reflect the use of an LED check source for the applicable noble gas monitors and are acceptable.

The NRC staff finds that the licensees' proposal to use an internal LED as the check source in lieu of a source of increased radioactivity will provide an equivalent means of performing the monthly source checks currently required by Technical Specifications. Consequently, the staff finds the Technical Specification changes proposed in the licensees' April 30, 1991, application acceptable.

### 3.0 STATE CONSULTATION

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

### 4.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change a surveillance requirement. 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 27037). 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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

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