

ARIZONA PUBLIC SERVICE COMPANY
PALO VERDE NUCLEAR GENERATING STATION
ANNUAL ENVIRONMENTAL OPERATING REPORT
FOR 1989

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TABLE OF CONTENTS

I. Introduction	Page 1
II. Environmental Monitoring Summaries and Analysis	Page 2
III. Plant Design and Operation Changes	Page 2
IV. EPP Noncompliances	Page 2
V. Nonroutine Reports	Page 3
VI. References	Page 3

I. INTRODUCTION

The Palo Verde Nuclear Generating Station (PVNGS) is located in Maricopa County, Arizona, approximately 50 miles west of the Phoenix metropolitan area. The PVNGS site comprises approximately 4050 acres. Site elevations range from 890 feet above mean sea level at the southern boundary to 1030 feet above mean sea level at the northern boundary.

The station consists of three pressurized water reactor electrical generating units with a nominal generating capacity of 1270 MWe per unit. PVNGS Units 1, 2 and 3 were all in commercial operation at sometime during 1989.

PVNGS was issued low power operating licenses NPF-34, NPF-46 and NPF-65 for Units 1, 2 and 3, respectively, by the United States Nuclear Regulatory Commission (NRC) on December 31, 1984, December 9, 1985 and March 25, 1987, respectively. The Unit 1 full power operating license NPF-41 was issued June 1, 1985. The Unit 2 full power operating license NPF-51 was issued April 24, 1986. The Unit 3 full power operating license NPF-74 was issued November 25, 1987. Appendix B to these operating licenses is entitled the "Environmental Protection Plan (Non-Radiological)". The Environmental Protection Plans (EPP) of each of the current operating licenses are identical.

The EPP has as its stated purpose the "protection of environmental values during construction and operation of the nuclear facility". In conjunction with this general purpose, the EPP also has the principal objectives to:

- "(1) Verify that the station is operated in an environmentally acceptable manner, as established by the FES [Final Environmental Statement] and other NRC environmental impact assessments.
- (2) Coordinate NRC requirements and maintain consistency with other Federal, State and local requirements for environmental protection.
- (3) Keep NRC informed of the environmental effects of facility construction and operation and of actions taken to control those effects".

This report is intended to satisfy the requirements of section 5.4.1 of the EPP regarding the submittal of an Annual Environmental Operating Report to the Commission. This report describes the activities during the year 1989 related to the PVNGS EPP. For purposes of this report, references to the EPP shall be considered to be the EPP of NPF-41, NPF-51 or NPF-74 unless otherwise specified.

II. ENVIRONMENTAL MONITORING SUMMARIES AND ANALYSIS

A. Cultural Resources

Section 4.2.1 of the EPP requires that an archaeological survey be performed when final alignment of the PVNGS-to-Saguaro transmission line is completed. As of the date of this report, plans for this transmission line have been placed on indefinite hold. Therefore, there has been no further activity in this area of the EPP.

B. Terrestrial Ecology Monitoring

Section 4.2.2. of the EPP requires that the provisions of the Salt Deposition and Impact Monitoring Plan be implemented by the onset of commercial operation of the first unit. The EPP further stipulates that the monitoring plan continue for a minimum of three full years after the onset of operation of all three units or until shown to not be necessary.

The enclosed report, Annual Report for PVNGS Salt Deposition Monitoring Program, January - December 1989 (NUS-5241) describes the results of the salt drift monitoring activities during 1989. Results for the various media sampled in the 1989 PVNGS drift monitoring program have been compared with corresponding pre-operational values. There are clear indications of the effects of cooling tower emissions, particularly in the deposition samples from close-in monitoring. Monitoring also detected statistically significant changes in some ions present in deposition, soil and plant tissue samples at one offsite control location about 19 miles west-northwest of the plant, which appears to be unrelated to plant operation. Operation during 1989 does not appear to have extended the range of influence of the PVNGS cooling tower drift emissions beyond that observed previously. The deposition rates measured offsite are much too low to produce any significant adverse environmental impacts.

III. PLANT DESIGN AND OPERATION CHANGES

Section 3.1 of the EPP allows changes in station design or operation or the performance of tests or experiments affecting the environment provided that such changes, tests or experiments do not constitute an unreviewed environmental question and do not require a change to the EPP. Changes, tests or experiments in which all measurable non-radiological effects are confined to the onsite areas previously disturbed during site preparation and plant construction or in which the environment is not affected are exempt from the evaluation and reporting requirements of Section 3.1. Section 3.2 of the EPP also exempts changes, tests, or experiments which are required to comply with other Federal State or local environmental regulations. There were no plant changes or tests requiring evaluation for unreviewed environmental questions during 1989.

IV. EPP NONCOMPLIANCES

There were no instances of noncompliance with the EPP identified during 1989.

V. NONROUTINE REPORTS

There were no nonroutine reports required by Section 5.4.2 of the EPP submitted during 1989.

VI. REFERENCES

NUS-5241, NUS Corporation, Annual Report for PVNGS Salt Deposition Monitoring Program, January - December 1989, April 1990.

