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TECHNICAL EVALUATION OF THE STATION
AND INSTRUMENT GROUND GRID SYSTEMS AT
THE DAVIS BESSE NUCLEAR POWER STATION
UNIT 1

James C. Selan

{Docket No. 50-346}

June 29, 1981

This is an informal report intended primarily for internal or limited external distribution. The opinions and conclusions stated are those of the author and may or may not be those of the Laboratory.

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ABSTRACT

This report documents the technical evaluation of the station and instrument ground grid systems at the Davis Besse Nuclear Power Station, Unit 1. The evaluation is to determine that there are no inadvertent ties between the instrument and station ground grid systems, that any identified inadvertent ties are corrected, and to assure that the installation meets design criteria.

The information submitted by the licensee indicates that there are no inadvertent ties between the station and instrument ground grid systems and that the installation meets design criteria.

FOREWORD

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James C. Selan
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1. INTRODUCTION

In a letter dated September 26, 1977 [Ref. 1], the Nuclear Regulatory Commission (NRC) requested Toledo Edison Company, the licensee, to analyze and test the instrumentation systems at the Davis Besse Nuclear Power Station, Unit 1, to identify and correct any inadvertent ties between the instrument and station ground grid systems and also to report any abnormalities during normal instrumentation monitoring.

By letter dated November 4, 1980 [Ref. 2], Toledo Edison Company submitted the results of their analysis and testing for inadvertent ground ties.

The purpose of this report is to evaluate the licensee's submittal with respect to the NRC criteria and present the reviewer's conclusion on the acceptance of the installation systems to meet design criteria.

2. EVALUATION

2.1 TESTING

Tests were conducted to meet the NRC criteria with concentration on the safety systems. Initial tests indicated several ground ties were present. Supplemental tests were then conducted to isolate and correct the ground ties.

2.2 ANALYSIS

The inadvertent ties present were in one channel of the safety features actuation system (SFAS) and in the four channels of the reactor protection system (RPS) [Ref. 2]. Supplemental tests on each channel isolated the ground tie so as to determine whether the tie was in accordance with the design criteria or not. An individual maintenance work order (MWO) [Ref. 1] was then generated to correct each inadvertent ground tie which did not meet the design criteria.

3. CONCLUSION

Based on the information submitted by Toledo Edison Company for the Davis Besse Nuclear Power Station, Unit 1, it is concluded that:

- (1) An analysis and testing of the ground grid systems has been conducted per NRC criteria.
- (2) The ground ties found in the ground grid systems which do not meet design criteria have been isolated and corrected.

Accordingly, I recommend that the NRC accept the analysis and testing of the instrument and station ground grid systems to isolate and correct any inadvertent ties in the safety systems of the facility.

REFERENCES

1. NRC letter (D. B. Vassallo) to Toledo Edison Company (Lowell E. Roe), dated September 26, 1977.
2. Toledo Edison Company (R. L. Crouse) to NRC (R. W. Reich), dated November 4, 1980.