



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SOUTHERN CALIFORNIA EDISON COMPANY

SAN ONOFRE NUCLEAR GENERATING STATION UNIT 1

DOCKET NO. 50-206

1.0 INTRODUCTION

In a letter dated November 2, 1984, from NRC to Southern California Edison Company (SCE), the licensee for San Onofre Nuclear Generating Station, Unit 1, the licensee was advised that containment vent system operation should be limited to a small fraction of the total time the plant is at power commensurate with safety-related requirements unless continuous venting was required to maintain plant safety. By letters dated April 19, 1985, and January 21, 1986, the licensee provided its justification for allowing the containment to be vented continuously during plant operation.

2.0 DISCUSSION

In its response, the licensee indicated that frequent vent valve operation would be required to maintain containment pressure below the Technical Specification limit of 0.4 psig. Such frequent vent valve operation would impose unnecessary burden on plant operation such as increased operator actions and awareness, increased airborne radiation in containment and the possibility for increased degradation of the 6-inch vent valve sealing surfaces. The licensee further indicated that should the vent valve sealing surfaces degrade, the vent valves may not be able to adequately seal containment during an accident condition. The licensee maintains that pressure buildup in containment cannot be avoided without changing the plant design. Currently, pneumatically operated valves located inside containment exhaust to containment atmosphere. The combined effect of instrument air leakage and bleedoff results in a nominal air flow into containment of 20 to 30 scfm. The cost associated with piping the instrument air bleedoff outside containment was estimated by the licensee to be as much as \$300,000.

3.0 EVALUATION

Operator inconvenience and increased radiation levels in containment are not considerations unique to San Onofre Unit 1. Although other facilities have limited the amount of time that containment is vented during normal plant operation, operator inconvenience and increased radiation levels in containment have not become significant problems.

Although the licensee's concern regarding seal degradation has merit in terms of public health and safety, the licensee's argument is entirely

speculative. The licensee did not supply supporting data to demonstrate to what extent seal degradation will occur and supporting calculations were not provided to translate seal degradation into off-site dose projections. Additionally, the likelihood of valve preventive maintenance to resolve this concern was not evaluated by the licensee.

4.0 STAFF CONCLUSIONS

Operating the containment vent valves on a routine basis is typically required at other nuclear power plants including San Onofre Units 2 and 3, and this activity in and of itself does not provide sufficient justification to allow the containment to be continuously vented at San Onofre Unit 1. Although it may be necessary to vent the containment more frequently at San Onofre Unit 1 than at other facilities, the licensee has not demonstrated that this increased frequency is unacceptable in terms of public health and safety. Therefore, the licensee has not provided adequate justification for leaving the containment vented during plant operation.

5.0 RECOMMENDATIONS

1. The licensee should take immediate action to limit the amount of time the 6-inch containment vent valves are open to a small fraction of the total time the plant is at power commensurate with safety-related operational requirements.
2. The licensee should monitor seal degradation of the 6-inch containment vent valves. If the licensee determines that a significant safety problem exists, this matter should be referred to the NRC for review and evaluation.

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