

SAFETY EVALUATION BY OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 2 TO NPF-6

ARKANSAS POWER AND LIGHT COMPANY

ARKANSAS NUCLEAR ONE - UNIT 2

DUCKET NO. 50-368

INTRODUCTION

By letter dated September 7, 1978, the licensee requested a change in Technical Specification 4.6.4.3.b for Arkansas Nuclear One - Unit 2. This Technical Specification states that the surveillance requirements for each of the containment recirculation fans shall be demonstrated to be operable at least once per 18 months by verifying a flow rate of at least 5000 cubic feet per minute.

DISCUSSION

The licensee states that a reanalysis of the containment recirculation fans has shown that 4500 cubic feet per minute flow of air through each of the two operating fans provides more than adequate recirculation to prevent hydrogen stratification within the containment building. Also, the licensee states that since a 4500 cubic feet per minute flow rate is the proposed lower limit, all other flow rates in excess of 4500 cubic feet per minute flow rate will also provide adequate recirculation.

EVALUATION

We have evaluated the licensee's proposed change to Technical Specification 4.6.4.3.b as well as conducting our independent evaluation of the licensee's proposal. Our evaluation is discussed below.

One of the provisions of Standard Review Plan 6.2.5 is that a system be provided to mix the combustible gases within the containment following a loss-of-coolant accident. This may be accomplished through the use of a recirculation fan system, fan-cooler system, or containment spray system. We have found that each of these systems acting alone is an acceptable means for providing adequate recirculation of the containment atmosphere. In addition to any of the above systems, natural convection forces would also contribute to mixing the containment atmosphere.

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The Arkansas Nuclear One, Unit 2 facility has all three of the systems discussed above, any one of which will provide adequate recirculation of the containment atmosphere. These three systems are (1) The Containment Air Recirculation System consisting of redundant trains with two as presently specified 5000 cubic feet per minute fans per train, (2) The Fan-Cooler System consisting of redundant trains with two 7500 cubic feet per minute fan-coolers per train, and (3) The Containment Spray Systems with redundant spray trains.

Therefore, we find that Arkansas Nuclear One - Unit 2 provides adequate means for preventing hydrogen stratification within the containment following a loss-of-coolant accident.

Based on our findings as discussed above, we conclude that the licensee's proposed change to Technical Specification 4.6.4.3.b is acceptable and is hereby amended to read that the surveillance requirements for each of the containment recirculation fans shall be demonstrated to be operable at least once per 18 months by verifying a flow rate of at least 4500 cubic feet per minute.

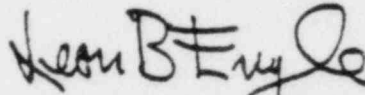
ENVIRONMENTAL CONSIDERATION

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.51(d)(4), that an environmental impact and, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

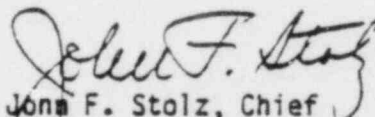
CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered or a significant decrease in any safety margin, it does not involve a significant hazards consideration, (2) there is reasonable assurance that

the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.



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Dated: OCT 4 1978