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UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
631 PARK AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406

Docket Nos. 50-245
50-336
50-423

SEP 13 1979

Northeast Nuclear Energy Company
ATTN: Mr. W. G. Counsil
Vice President - Nuclear
Engineering and Operations
P. O. Box 270
Hartford, Connecticut 06101

Gentlemen:

The enclosed IE Circular No. 79-19, is forwarded to you for information. No written response is required. Should you have any questions related to your understanding of this matter, please contact this office.

Sincerely,

Robert T. Carlson for
Boyce H. Grier
Director

Enclosures:
1. IE Circular No. 79-19
2. List of IE Circulars Issued in the Last Six Months

cc w/encls:
J. F. Opeka, Station Superintendent
D. G. Diedrick, Manager of Quality Assurance
J. R. Himmelwright, Licensing Safeguards Engineer
K. W. Gray, Construction Quality Assurance Lead
H. R. Nims, Director of Nuclear Projects
A. Z. Roisman, Natural Resources Defense Council

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ENCLOSURE 1

SSINS: 6830
Accession No: 7908220111

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D. C. 20555

IE Circular No. 79-19
Date: September 13, 1979

LOOSE LOCKING DEVICES ON INGERSOLL-RAND PUMP IMPELLERS

Description of Circumstances:

Three reports have been submitted to the NRC regarding the loosening of locking devices on the impellers of pumps manufactured by the Ingersoll-Rand Company.

The first report was submitted as a significant deficiency (10 CFR 50.55[e]) by Arkansas Power and Light Company in letters of March 17, 1978 and May 9, 1978. The licensee reported excessive noise and vibrations in both Low Pressure Safety Injection (LPSI) pumps during the preoperational test program on Unit 2 of Arkansas Nuclear One (ANO). It was discovered that the washers, jam nut and cap nut used to retain the impellers were missing on both pumps (Ingersoll-Rand Type 8X20WD). The licensee's corrective action involved the installation of a tab washer. This corrective action was also taken on the containment spray pumps (Ingersoll-Rand Type 6X23WD) because of similarity of design.

The second report was submitted by Duke Power Company in a licensee event report (LER 50-287/78-23) dated January 24, 1979. The symptoms were similar to those observed at ANO Unit 2 in that high vibration was detected in a reactor building spray pump (Ingersoll-Rand Type 4X11A) for Oconee Unit No. 3. The licensee found that the impeller had worked loose. The corrective action included a revision to the mainteinance procedure to specify torque requirements.

The third report was 10 CFR 21 Report No. 79-01 submitted by Portland General Electric Co. on April 16, 1979. This report identified a deficiency that may exist in the Trojan Nuclear Plant containment spray pumps (Ingersoll-Rand Type 6X23WD) in that there is a potential for the impeller lock nut to loosen. The potential deficiency was identified because of the similarity of the containment spray pumps design to the residual heat removal (RHR) pumps (Ingersoll-Rand Type 8X20WD) and the discovery of a loose lock nut on an RHR pump during pump maintenance. The corrective action was to provide a positive mechanical lock on the impeller nut.

Westinghouse Nuclear Service Division
Westinghouse plant owners on loose lo
and WDF pumps. Excerpts from that Te
Combustion Engineering, Inc. has also
to the same problem in a letter dated
letter are in Attachment No. 2.

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DUPLICATE DOCUMENT

Entire document previously entered into system under:

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No. of pages: 7