



ARKANSAS POWER & LIGHT COMPANY

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December 19, 1984

1CAN128408

Director of Nuclear Reactor Regulation  
ATTN: Mr. J. F. Stolz, Chief  
Operating Reactors Branch #4  
Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

SUBJECT: Arkansas Nuclear One - Unit 1  
Docket No. 50-313  
License No. DPR-51  
Inservice Inspection of Reactor  
Coolant Pump Casing Weld

Gentlemen:

By letter dated November 19, 1984, (1CAN118410) AP&L discussed plans for performing a volumetric examination of a reactor coolant pump (RCP) casing weld during the current refueling outage. The ASME Code requires that one such examination be completed during each 10 year inservice inspection interval. ANO-1's first 10 year inspection interval ends during the current refueling outage on December 19, 1984. As discussed in the November 19, 1984, letter, use of the EPRI MINAC system was planned for this examination due to the impracticability of standard volumetric examination techniques. The MINAC system uses a linear accelerator to produce a collimated beam capable of passing through both walls of the casing and precludes the need for pump disassembly. The purpose of this letter is to inform you that we were unable to complete the subject examination during the current refueling outage due to equipment malfunctions and to request schedular relief to allow this examination to be deferred for one cycle of operation.

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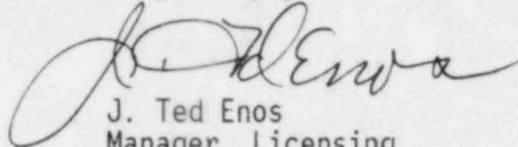
Difficulties with the MINAC system were first encountered during initial system check-out on November 28. The problem was traced to the "magnetron", a component which produces the voltage oscillations necessary for acceleration. Following discussions with Mr. Russ Schonberg of Schonberg Radiation Corporation (SRC) a new magnetron was shipped to ANO. The new magnetron was installed on November 29 and system check-out was successfully completed on November 30. Due to ALARA and accessibility considerations the planned examination was carefully scheduled with other work in the reactor building and the first window for attempting the examination occurred on December 4. Inspection personnel, assisted by Mr. Schonberg, set up in the reactor building and made the first examination attempt on December 4. The attempt was halted when the system malfunctioned and no radiation emission was detected. The problem was traced to the accelerator guide and this component was shipped via air freight to SRC for repairs. Repairs were completed and the accelerator guide was returned on December 8. The system was once again prepared for the examination. System check-out was completed and the examination begun on December 9, however, the system again malfunctioned with approximately one-third of the first exposure completed. Trouble shooting and repair efforts continued unsuccessfully until December 11 when the equipment was removed from the reactor building in preparation for the reactor building integrated leak rate test (ILRT).

Due to the work schedule following the ILRT in preparation for plant heat-up it is no longer possible to make another attempt to perform the RCP casing weld examination without significantly delaying the scheduled restart of ANO-1. Each film exposure using the MINAC requires approximately 1 hour and approximately 40 such exposures are required to complete the examination of accessible portions of the weld. In addition approximately 300 to 400 manhours will be required to reinstall insulation in the vicinity of the RCP. Based on these considerations AP&L has terminated the attempted examination during this outage and is requesting schedular relief to allow the examination to be deferred for one cycle of operation. In lieu of a volumetric examination, AP&L has completed a dye penetrant examination of the RCP casing weld. This examination, which is not required by the ASME code, resulted in no indications of defects. The specific code requirements from which relief is requested are as specified in our November 19, 1984, letter.

As with our November 19, 1984, relief request relative to the scope of this inspection, we do not feel that formal approval of this request is needed prior to restart of ANO-1, however for planning purposes we do request your timely review of this matter. As discussed with Mr. Guy Vissing of your staff, the need for your review of the previous relief request of November 19, 1984, is not affected by this request for schedular relief.

In summary AP&L has made a concerted effort to utilize the latest technology available to comply with the ASME code requirements for this examination. It should be noted that this is, to our knowledge, the first such attempt on a Byron-Jackson RCP and when completed will yield data significantly beyond that obtained at similar installations at other facilities. Based on the successful completion of a dye penetrant examination of the RCP casing weld and the lack of an indication of pump performance degradation discussed in our November 19, 1984, letter, we conclude the deferral of additional examinations for one cycle is acceptable and request your concurrence.

Very truly yours,



J. Ted Enos  
Manager, Licensing

JTE:ds