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November 5, 1984

Mr. Darrell Eisenhut
Director of Reactor Licensing
United States Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Eisenhut:

We have recently received from Kansas Gas & Electric Company a copy of NRC Inspection Report No. 50-482/84-22 in Docket No. 50-482 (Wolf Creek Generating Station). The report was generated following an inspection conducted between June 11, 1984 and September 28, 1984. Generally, the report concludes that two violations were identified: (1) failure to assure conformance of safety-related structural steel welds with requirements; and (2) failure to maintain adequate electrical separation. Specifically, the report cites a variety of problems which appear to be substantial:

During a review of QA/QC and Quality First personnel qualifications and subsequent interviews, the NRC inspector became aware of potential problems with corrective action reports CAR 29 and 31. The NRC inspector subsequently obtained copies of the two documents. CAR 1-W-0029 (initiated on March 22, 1983) states, in part, 'Subsequently to the issuance of CAR 1-W-0019, quality has instituted a random reinspection of accessible structural steel fillet welds in all Q buildings. It has been determined by the results of this reinspection that an unacceptable percentage of these welds are deficient in the auxiliary, control, and fuel buildings.' Attached documentation revealed that in the auxiliary building, 60 welds were inspected, with 53 being rejected. In the control and fuel buildings, 50 welds were inspected with 43 rejected, and 53 inspected with 35 rejections, respectively. Revision 2 to CAR 1-W-0029 stated in the disposition that the defective welds would be transferred to a Nonconformance Report (NCR). The NRC inspector obtained a copy of NCR ISN 10381PW which was used as the vehicle to carry out the direction provided by CAR 1-W-0029. It appears that DIC Project Welding Engineering personnel again reinspected the welds to

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more clearly define the nature and extent of the defects on a weld-by-weld basis. A majority of the defective welds were categorized as having "cosmetic" defects. The DIC recommended disposition was use-as-is for welds identified containing "cosmetic" defects. The NCR states that "cosmetic" defects include arc strikes, convexity, cold roll (understood to be synonymous with overlap), porosity, and acceptable amounts of undercut. The NRC inspector noted with respect to these defects that overlap is prohibited by the governing AWS D1.1-75 Code, and specific acceptance criteria for the other defects are also defined by this Code.

* * *

On August 16, 1983, DIC personnel issued CAR 1-C-0031 which indicated that approximately 16.4 percent of the miscellaneous structural steel welding records for "Q" welding could not be located. After corresponding back and forth, DIC and the engineer concluded that it was acceptable for some amount of these records to be missing, provided that the quality inspection program was acceptable. Senior licensee QA management expressed to the NRC inspector that the program had obviously been fully successful since very few welds had been found to require repair after a substantial reinspection effort associated with CAR 29. The NRC inspector expressed concern with this approach to resolution and suggested that the licensee reevaluate their position.

* * *

During the week of September 17, 1984, a reinspection of the identified structural members with the highest design loads or the lowest design strength safety margin was initiated. The reinspection identified a number of welds which do not meet drawing requirements. This information was presented to the NRC staff during a meeting conducted on September 25, 1984. In an effort to confirm certain of the identified conditions, the NRC inspector accompanied DIC welding inspectors into the reactor building to observe specific, identified weld joints. This observation confirmed the welding inspectors' findings; e.g., welds that are undersized and of insufficient length, lack of fusion, and missing welds.

The missing welds are from the same location in each of six pressurizer support connections. Certain of the other welds in the pressurizer support connections were

undersized and of insufficient length. Drawing No. C-05 2904 shows that various length 5/8-inch welds are required in 14 specific locations. Four locations required a 5/8-inch fillet weld of 8 inches in length. The actual welds in two of the locations measured between 3/8-inch and 1/2-inch by 5 inches in length, and 1/2-inch by 3 inches in length. The missing welds and the undersized, insufficient length welds are clearly not in compliance with the requirements of the drawing or AWS D1.1-75. The initial weld inspection records for these connections could not be located.

The NRC inspector accompanied two DIC welding inspectors for reinspection of nine structural steel connections in the auxiliary building. Drawing No. K6720, applicable to these connections, shows 12 weld locations per connection with certain of the welds requiring returns. Reinspection of the welds and returns involved provided the following summarized data:

- Missing welds	2
- Welds with insufficient length	9
- Undersized welds	6
- Undersize welds with insufficient length	2
- Overlength returns	44
- Undersize returns	25
- Undersize returns with insufficient length	1

The NRC inspector requested the initial weld inspection records for these welds and returns in the 9 reinspected connections. As of September 28, 1984, the only inspection records that were located pertained to 10 welds and 6 returns in one connection, and 8 welds and 4 returns in each of 3 other connections. These records did not indicate that the welds were anything other than acceptable. The licensee informed the NRC inspector of a situation where one inspection record for connection 524B2 clearly indicated by an attached sketch the existence of the a weld that reinspection found not to exist. This problem will be followed up in conjunction with the other structural steel problems.

The NRC inspector made a comparison between the existing initial inspection records and the results of

the reinspection effort in order to determine the validity of the initial records. The initial records show that the 10 welds with 6 returns in one connection were inspected and accepted on December 11, 1978. The reinspection identified one undersized weld, other undersized and overlength returns, and three overlength returns. The initial records for the other three connections show that eight welds with four returns per connection were inspected and accepted on September 8, 1979. The reinspection of these welds and returns identified two returns which were overlength and undersized and two returns which were overlength per connection.

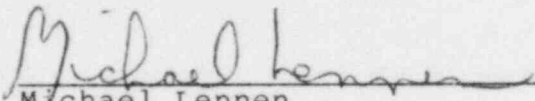
The failure to execute the required welding inspection program is a violation of Criterion X of Appendix B to 10 CFR Part 50. (482/8422-01).

We note that you have recently been quoted by the press as indicating that these welding problems could portend extensive delays. We assume that you now question the most recent NRC case load forecast panel estimate for the date of fuel load. Due to the ratemaking impact of project delay, it is necessary that we inquire as to your best estimate at this time of the length of project delay occasioned by the defects identified in the above-referenced inspection report.

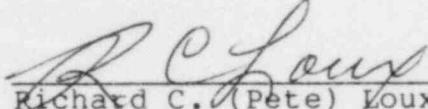
Thank you for your cooperation.

Sincerely,

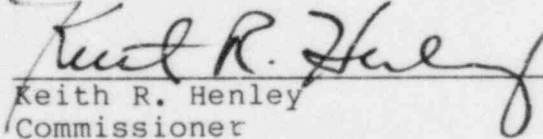
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