

August 12, 1985

DMB

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-IV-85-41

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. The information is as initially received without verification or evaluation, and is basically all that is known by NRC staff on this date.

FACILITY: Kansas Gas & Electric Company  
Wolf Creek Generating Station  
Burlington, Kansas  
Docket No.: 50-482

Licensee Emergency Classification:  
☐ Notification of Unusual Event  
☐ Alert  
☐ Site Area Emergency  
☐ General Emergency  
☒ Not Applicable

SUBJECT: POTENTIALLY GENERIC HARDWARE PROBLEMS AT THE WOLF CREEK GENERATING STATION

1. Terminal Blocks - KG&E identified on July 31, 1985, that the terminal blocks provided by Anchor Darling and manufactured by Connectron as replacement or spare parts for the Main Steam Isolation Valves (MSIV) and Feed Water Isolation Valves (FWIV) were not qualified for the temperature envelope of a high energy line break. While examining these terminal blocks for evidence of cracking, it was noticed that the terminal blocks were of two different materials. A subsequent investigation revealed that the blocks that had been installed during refurbishment of the valves were nylon instead of the required polysuphono material. Both type of blocks have the same Anchor Darling part number (part No. W32676). A total of 14 unqualified blocks had been installed in the control circuits for the MSIVs and FWIVs during refurbishment in December 1984. At approximately this same time KG&E became aware of a potential for two different terminal block materials through a letter from Bechtel. However, a subsequent check revealed that the Anchor-Darling part number was correct for the block at Wolf Creek. Subsequently, six of the unqualified terminal blocks have been replaced. Only one train of one MSIV and one train of one FWIV now have unqualified terminal blocks.

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KG&E has ordered the correctly qualified terminal blocks and expects delivery during the week of August 12, 1985. They expect to install the correct blocks during the shutdown at the end of the their 250-hour full power run, or sooner if the plant has an inadvertent shutdown. The shutdown as scheduled to take place on August 21, 1985.

Because of a problem with possible reopening of the one feedwater isolation valve after closure, should a high energy line break occur during this time period, KG&E has initiated and trained operators on a special procedure to require that the control fuses be pulled for this valve immediately after it closes.

These terminal blocks are NU-2 type terminal blocks manufactured by Connectron under Anchor-Darling Part No. W32676.

Region IV contacted IE (Vendor Branch) and NRR (Licensing) concerning this information on August 8, 1985, and issued a Daily Report on August 9, 1985.

2. Control Switches - On August 9, 1985, KG&E informed the Senior Resident Inspector and Region IV of a potentially generic problem with Cutler-Hammer pushbutton E-30 type switches utilizing the dual contact blocks KLA-3, KLA-4, or KLA-5.

On July 12, 1985, Wolf Creek had a Control Room Ventilation Isolation during which three ventilation dampers did not close. A subsequent investigation identified that the problem was caused by a single switch that had contacts that were in the wrong position. Subsequent inspection of the switch indicated that the actuation plunger was binding in the contact block preventing the spring loaded contact from returning to the normal position. The plunger was pushed and it returned to normal and the switch then operated successfully a number of times. The problem was identified as an alignment problem by an electrician. A subsequent engineering evaluation on July 25, 1985, determined that this was not an alignment problem. On July 30 two additional switches were identified that had the plunger binding problem.

Cutler-Hammer on August 2, 1985, determined that the initial switch had material in the contact block that may have caused the binding.

On August 8, 1985, KG&E began an extensive inspection on all C-H pushbutton switches and determined that 401 control switches involved in most plant systems could be effected by this potential problem. Three switches were identified as being in the incorrect position.

KG&E has initiated the following compensatory actions pending further evaluation:

- o Operator was made aware of potential problems.
- o Dual contact switch blocks have been uniquely identified so that the operator can easily identify affected switches.

- o Standing order - each time an operator operates one of these switches - the operator verifies that the switch plunger has returned to its normal position.
- o Electricians will perform a weekly surveillance of dual contact block switch plunger positions, verifying normal position and report any abnormality to the operations superintendent.

All switches that are identified as experiencing a single failure are to be replaced - based on plant operation availability (operating status).

- o Operations personnel have reviewed all Emergency Operating Procedures and identified 150 references to switches that could have the potential problem. Each of these references have been evaluated by a shift supervisor to assure that the compensatory measures are adequate.

Region IV on August 9, 1985, notified IE and NRR of the problem with the Cutler-Hammer switches at Wolf Creek and KG&E's compensatory actions.

Region IV has notified Region III of the above potential hardware problems at Wolf Creek and will update as information becomes available.

The licensee does not plan to issue a press release but will respond to any media inquiries.

The state of Kansas has been informed.

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