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Nebraska Public Power District

GENERAL OFFICE
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January 22, 1980

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Order to Show Cause
Cooper Nuclear Station
NRC Docket No. 50-298, DPR-46

Reference: 1) Letter from H. R. Denton to J. M. Pilant
Dated January 2, 1980

Dear Mr. Denton:

Reference 1 transmitted an Order to Show Cause which required Nebraska Public Power District to show cause why Cooper Nuclear Station should not be placed in a cold shutdown condition by January 31, 1980 to implement all "Category A" short-term lessons learned requirements of NUREG-0578. The order provided an exception to the shutdown requirement for plant modifications for which necessary equipment can be shown to be unavailable. The order also provided that the "Category A" requirements not implemented by January 31, 1980, owing to the unavailability of necessary equipment shall be implemented within 30 days of the date such equipment becomes available, but no later than June 1, 1980.

Nebraska Public Power District has implemented prior to January 1, 1980 all "Category A" requirements of NUREG-0578 regarding short-term lessons learned, as supplemented by NRC letters of September 13 and October 20, 1979, with the exception of the two requirements discussed below. Due to unavailability of necessary hardware, these requirements will be implemented within 30 days of hardware receipt, during an extended station outage scheduled for March 15, 1980.

2.1.3.a Direct Indication of Valve Position

Pressure switches will be installed on all Safety/Relief Valves (S/RV) discharge piping to provide the control room with direct unambiguous indication of S/RV position. The details of the expedited procurement efforts which commenced in October 1979 were provided in response to the staff's telephone request January 7, 1980. General Electric Co. will ship ten pressure switches (GE DWG 21984562) to CNS between February 28 and March 6, 1980. The pressure switch delivery date was verified by the General Electric Co. on Monday, January 21, 1980. The required S/RV discharge piping modifications and pressure switch installation will be completed during the March 15, 1980 outage in

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conjunction with modifications to this piping necessary because of the Mark I Containment Program. Installation of the pressure switches at that time, i.e. well into an extended outage, will be beneficial from an ALARA standpoint because the dose to personnel will be significantly reduced. The remainder of the position indication system, i.e. conduit, cable, and annunciator installation, are essentially complete in that components which are no longer necessary for the Target Rock 3rd Stage S/RV Bellows Monitoring system will be utilized; however, these components will not be available until the installation of the more reliable 2-stage valves. The necessary environmental qualification of the pressure switches will not be available prior to installation.

Cooper Nuclear Station has for the past several years and currently still is utilizing a method and procedures to determine if a Safety/Relief Valve has opened and has not closed. A thermocouple is installed on each relief valve discharge tail pipe. Operability and response of this thermocouple is tested by actuating the relief valve at 150 psi pressure during each startup after relief valve maintenance has been performed. These relief valve discharge temperatures are continuously recorded on a recorder. An alarm is actuated when the temperature exceeds the setpoint. The process computer also prints out on the events log when the temperature reaches the alarm setting. Although the temperature monitoring method does have a slow response in indicating valve closure, this slowness does not influence further operator actions as the operator must be most concerned about pressure and water level which can be quickly monitored.

2.1.4 Diverse Containment Isolation

NPPD originally endorsed the BWR Owners Group position on this requirement which committed to instituting administrative controls by January 1, 1980 to prevent containment isolation valves from reopening when the isolation logic was reset, coupled with logic modifications to be completed by January 1, 1981. This Owners Group position was found unacceptable by the staff and a detailed design change was initiated on an expedited basis for the 14 isolation valves at Cooper Station which require modification to their control logic. Necessary hardware was ordered (i.e. position switches, relays, etc.) and the details of the expedited procurement efforts were provided in response to the staff's telephone request of January 7, 1980. In discussions with General Electric Co. this date, it was verified that the necessary switches will be received approximately February 15, 1980. Administrative controls are presently in effect to ensure containment isolation in the interim.

NPPD recognizes that this modification to the containment logic could possibly be performed while the station is operating, but the risk of a spurious trip and the resultant thermal cycles on the plant indicates that this modification should be made during a cold shutdown. Based on the current hardware schedule (as noted above) our currently scheduled refueling outage would start, essentially 30 days after receipt of the necessary hardware.

The District believes that the implementation of administrative procedures for control of containment logic reset, coupled with the existance of various alternate methods for indication of open Safety/Relief Valves provides adequate assurance of continued public health and safety; therefore, delay of station shutdown based on equipment availability until March 15, 1980 is considered justified.

Additionally, the effect on power system stability in the state of Nebraska due to a forced shutdown of CNS prior to March 1980 is presented in the enclosed memo. This information underscores that CNS should be permitted to operate until the presently scheduled outage of March 15, 1980.

Should you have any questions or require additional information, please contact me.

Sincerely,

Jay M. Pilant
Director of Licensing
and Quality Assurance

JMP:JDW:cmk

Enclosure

STATE OF NEBRASKA)
) ss
PLATTE COUNTY)

Jay M. Pilant, being first duly sworn, deposes and says that he is an authorized representative of the Nebraska Public Power District, a public corporation and political subdivision of the State of Nebraska; that he is duly authorized to submit this information on behalf of Nebraska Public Power District; and that the statements in said application are true to the best of his knowledge and belief.

Jay M. Pilant

Jay M. Pilant

Subscribed in my presence and sworn to before this 22nd day of January, 1980.

Marilyn R. Hohndorf
NOTARY PUBLIC

My Commission expires Oct. 14, 1980.

GENERAL NOTARY - State of Nebraska
MARILYN R. HOHNDORF
My Comm. Exp. Oct. 14, 1980

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NEBRASKA PUBLIC POWER DISTRICT

FOR INTER-DISTRICT BUSINESS ONLY

Place Hastings, Nebraska

Date January 21, 1980

To R.S. Kamber

Place Columbus, Nebraska

Subject

(One letter should cover only one subject)

Some serious stability problems could develop in the NPPD Control Area if the Cooper Unit were to be shut down during the winter peak load season and with Gentleman Unit No. 1 out of service due to turbine blade damage.

NPPD presently has generating capability of 2,249 megawatts. This capability is made up of 778 MW nuclear (Cooper), 955 MW fossil (coal/gas), 393 MW fossil (oil/gas) and 123 MW hydro. With the Gentleman Unit (630 MW coal) out of service and with Sheldon Unit No. 1 (105 MW coal) restricted to 35 MW due to F.D. fan problems the coal fired capability is reduced to 255 MW and the total capability to 1,549 MW. If the Cooper Unit were shut down the total generating capability would be reduced to 771 MW of which 393 MW would be oil fired.

Control Area loads during this portion of the year average 1,300-1,400 MW during on-peak hours. Therefore, if the Cooper Unit is shut down we will be forced to import fifty percent or more of our total requirements and to operate our oil burning equipment for a large portion of our energy requirements. Importing fifty percent or more of the load requirements creates a situation wherin stability becomes of major concern. The tripping of any major transmission lines during such conditions can cause excessive loading on other facilities and result in major system disturbances. (The blackouts which we experienced in 1965 and 1966 were attributable, at least in part, to just such conditions and as you know the New York blackouts were also due in part to excessive imports and insufficient local generation.) For this reason, I feel we must not schedule the Cooper Unit out during the outage of the Gentleman Unit.

In addition to the stability problems that could occur with simultaneous outages of the Cooper and Gentleman Units, it must be recognized that we would have to generate a large portion of our energy requirements using oil fuel. Even if replacement energy were available outside of our control area, we simply could not schedule it into the system because we would have to operate all available internal generation in order to maintain any degree of system control. This would include all combustion turbines and diesel units.

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The figures I have given do not take into consisderation our requirement for operating reserves which at present range from 105 to 117 MW. This will necessitate even greater imports of power and thus further aggravate the stability problems.

In summary, I feel we must not schedule an outage of the Cooper Unit during the outage of the Gentleman Unit, primarily for reasons of stability and secondly because of the necessity of burning large quantities of oil of which we have but a limited supply.

James Eckblade

C.J. Eckblade
Power Systems Manager

:ns
cc: R. Buntain
J. Pilant