



Consumers  
Power  
Company

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March 6, 1973

Mr. Boyce H. Grier, Regional Director  
Directorate of Regulatory  
Operations, Region III  
US Atomic Energy Commission  
799 Roosevelt Road  
Glen Ellyn, IL 60137

Re: Docket No 50-155  
License No DPR-6

Dear Mr. Grier:

This letter is in reply to Item 2 of the enclosure attached to your letter of February 12, 1973. This letter referred to your findings that certain of our activities appeared to be in noncompliance with our facility Technical Specifications. Specifically, Consumers Power Company's Big Rock Point Nuclear Plant Technical Specifications 4.2.2(C) which states that if the unidentified primary system leakage exceeds one gpm, the reactor shall be placed in the hot shutdown condition within twelve hours.

The plant staff spent considerable time and effort in design, purchasing and installation of equipment that was felt to be adequate for meeting this requirement. In our submittal of the proposed specification, we presented the tests that we had conducted as well as the areas where we felt that additional improvements might be required.

In reviewing this subject with the plant staff, we have concluded that our present capabilities will permit leak rate sensitivities of between 1/2 and 3 gpm, depending on plant operating conditions. The sensitivity varies as a function of about five or six plant evolutions. We feel that this meets the intent of the Technical Specifications and provides a timely awareness of any significant leakage condition which may occur. However, we recognize that the leakage and measurement system, as presently installed, is not as sensitive as we had expected and have concluded that additional measurement sensitivity is required. Accordingly, we are currently performing a review of the leakage collection and measurement systems and are planning appropriate improvements.

The planned improvements are based on our interpretation of the Technical Specifications requirements; namely, that primary coolant system leakage inside the containment shall not exceed 1 gpm unidentified and 10 gpm unidentified and identified. Process streams such as control rod

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drive pump packing leak off and cooling, recirculating water pump seal control leakage flows, leakage flows used for conductivity measurements and other similar process flows will be excluded from the calculation of identified and unidentified leakage. Daily variations in the amounts of these process flows mask the calculation of unidentified leakage and have diluted the effectiveness of leakage monitoring as described in the previous paragraph. In addition, seat leakages from items such as vent valves, drain valves and other similar devices will be collected in a common collection system and are considered known leakage. Instrumentation is being procured with the philosophy of determining leakage on a daily basis; however, it will facilitate more frequent determinations if trends of concern should be developing.

In attempting to correct the current problem, we have spent considerable effort in determining individual leakages from components of both the primary and secondary system (which unfortunately are presently collected in the same sump). We have on occasion reduced reactor power to permit entry into and visual inspection of all areas of the plant and we are closely observing our qualitative type detection instrumentation for indication of primary system leakage.

The corrective steps which will be taken will depend on the final results of our study (currently in progress) of the present system. Tentatively, we expect to make the following improvements:

1. Add an additional sump or sumps to our present collection system for use in collection of effluents not requiring quantitative measurement.
2. Improve our quantitative measurement capability by adding level instrumentation to two of the collection sumps.
3. Provide adequate separation of our collection sumps to insure collection of "unknown" leakages in a single sump.
4. Improve our detection of moisture vapor by moving two of the present dew point detectors to position where they will measure moisture in the containment sphere inlet and exhaust systems.

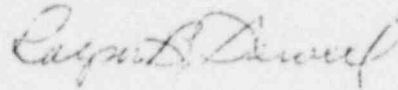
We presently plan to complete Item 3 and parts of Items 1, 2 and 4 during the refueling outage scheduled to begin March 3, 1973.

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Full compliance with the Technical Specifications will depend primarily on the delivery of new instrumentation and equipment. We estimate this to be about six months and, therefore, expect the plant to hopefully achieve full compliance by August 1, 1973.

Yours very truly,



Ralph B. Sewell  
Nuclear Licensing Administrator

RBS/map