

NSP

NORTHERN STATES POWER COMPANY

MINNEAPOLIS, MINNESOTA 55401

February 29, 1980

Mr. A. B. Davis, Chief
Fuel Facility and Materials Safety Branch
Region III, Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

Dear Mr. Davis:

PRAIRIE ISLAND NUCLEAR GENERATING PLANT
Docket Nos. 50-282 and 50-306

In response to your letter of February 7, 1980 which transmitted Inspection Reports 50-282/79-32 and 50-306/79-26, the following is offered:

As part of the Confirmatory Measurements Program with the NRC, a gas sample was drawn with the NRC from the Prairie Island low level gas header on August 31, 1978. The NSP staff prepared two separate aliquots and made nine separate counts of these for varying collect times, all yielding the result of $1.5E-02$ uci/cc xenon-133. This counting system is totally computerized, uses vendor-documented software and is verified against a National Bureau of Standards mixed isotope source on a weekly basis. The NRC results on this gas sample for xenon-133 were $1.4E-01$ uci/cc.

Our program looks for all nuclides on any given computer run and the other two gases, xenon-133m and krypton-85, were analyzed in agreement with the NRC. We would also note that the Quarter 1, 1978 Confirmatory Measurements Gas Sample showed partial agreement though NSP showed a higher result than the NRC. This was done on the same GeLi detector with the same efficiency data.

The xenon-133 determination performed on the low level gas header sample drawn with the NRC on December 19, 1979 is in preliminary agreement with the NRC. This sample was collected with the same procedures as the August 31, 1978 sample. In both cases the same GeLi detector was used along with the Canberra factory software. The calibration for efficiency remained the same as on August 31, 1978 and had continued to be checked weekly against the National Bureau of Standards Source which specifically checks the xenon-133 portion of the spectrum with a cadmium-109 peak at 88 Kev. This result along with the continuing results on our quarterly split sample results with Nuclear Environmental Services which we began in 1977 and the fact that the other two gases in the sample in question were determined successfully has led us to feel confident in our results for xenon-133 in August of 1978.

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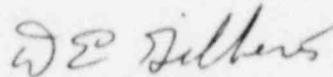
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Mr. A. B. Davis
Page 2
February 29, 1980

We would note the Quarter 2, 1977 Confirmatory Measurements off-gas sample where a similar occurrence took place. In this case the NRC was a factor of twenty higher than the NSP results and it was subsequently determined that the NRC was reporting uci/vial while NSP was reporting uci/cc. We have taken no supplemental action other than to review the problem thoroughly and have no plans at this time to take any further action.

We are, however, concerned by the suggestion that our xenon-133 release analysis could have been a factor of ten low during the time of comparison which was almost eighteen months. We do not think the facts, as outlined in this communication, substantiate this in any way. We hope that any further discrepancies can be discussed at an early point where both parties can review all the raw data of the determinations.

Yours truly,



D. E. Gilberts
Vice President
Power Production

cc: Mr. G. Charnoff

DEG:nk