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October 10, 1984

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

Subject: Byron Generating Station Units 1 and 2
Charcoal Filter Efficiency
NRC Docket Nos. 50-454 and 50-455

Dear Mr. Denton:

This letter provides the results of laboratory tests on the charcoal adsorbent which will be used in the ventilation system filters at Byron Generating Station. NRC review and acceptance of these test results is requested.

The charcoal adsorbent for Byron was purchased from the Farr Company and received at the site during the period between June 30, 1980 and January 8, 1981. The manufacturer has certified the properties of the charcoal by qualification tests performed on each batch prior to shipment. The charcoal has been stored in warehouses at the site from the time it was received.

Nuclear Consulting Services, Inc. (NUCON) recently performed methyl iodide tests to determine if the efficiency of the charcoal has degraded during storage. ANSI-N509-1976 requires a 99% efficiency for new charcoal. Attachment I summarizes the results of the NUCON tests. All batches have exhibited acceptable efficiencies except batch #13 which has an efficiency of 98.16%. Since the efficiency of batch #13 is just slightly below the N509 acceptance criteria we feel its use will not affect plant safety. The measured efficiency of all batches is well above the 95% efficiency used in our FSAR analyses.

Because the Byron/Braidwood FSAR commitment for charcoal efficiency is ANSI N509-1976, NRC concurrence is needed for the use of batch #13 at Byron. Please direct further questions regarding this matter to this office.

Very truly yours,

T. R. Tramm

T. R. Tramm
Nuclear Licensing Adminstrator

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Attachment

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1/1

9223N

Attachment I

Results of Laboratory Tests* of Activated
Charcoal Adsorbent Samples for
Byron Station

Charcoal Sample #	Date Test Perform	Test Results (Efficiency)
8899 (Batch 2)	3/29/84	99.97%
9360 (Batch 3)	3/29/84	99.85%
9620 (Batch 10)	4/3/84	99.57%
8989 (Batch 2)	4/4/84	99.55%
9275 (Batch 13)	4/4/84	98.16%
2364-9 (Batch 9)	-	99.75%
4641 (Batch 4)	5/25/84	99.37%
4784 (Batch 5)	5/26/84	99.592%
4053 (Batch 1)	5/27/84	99.905%
5205 (Batch 6)	5/28/84	99.622%

* All tests were performed at 25.0°C and 95% RH as required per ANSI N509-1976.

DPC/sb/4922b