

BUFFALO MATERIALS RESEARCH CENTER

Document Control Desk  
US Nuclear Regulatory Commission  
1 Whiteflint North  
11555 Rockville Pike  
Rockville, MD. 20852

September 13, 1990  
Docket 50-57  
License R-77

Atn. Mr. Ted Michaels

Dear Mr. Michaels:

The purpose of this letter is to request a temporary exemption from a requirement of our Technical Specifications to determine on an annual basis, the sensitivity of our gaseous radioactivity effluent monitors.

Specifically, Section 4.3(4), Surveillance Requirements - "Radiation Monitoring Systems Tests" specifies that the "Effluent monitor sensitivities shall be determined experimentally annually, not to exceed 15 months."

The sensitivities of the gaseous effluent monitors (stack gas and building gas) are determined by injecting measured quantities of Ar-41 gas into the sensitive volume of the monitor and observing the resulting increases in monitor count rate. Ar-41 is used because it is the principle gaseous effluent associated with routine reactor operations. A minimum of four injections are required to test both monitors. In general, there has been very little change from year to year in the measured monitor sensitivities.

With the reactor not operating, we do not generate any Ar-41 effluents, nor can we produce the Ar-41 samples required to perform the sensitivity determinations. We have however continued to perform all required electronic calibrations and operability checks. This includes the determination of the detector response to a reference Co-60 source. These tests would alert us to any significant deterioration in monitor performance.

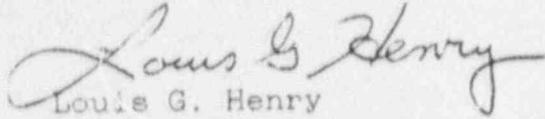
Because of the short half-life of the Ar-41 and the need to perform multiple injections, we have discounted the purchasing of Ar-41 from an alternative reactor. This would be expensive, logistically difficult (especially shipping), and would lead to unwarranted radiation exposures since very large quantities would need to be shipped to provide sufficient radioactivity upon arrival at BMRC.

We, therefore request, that the requirement to perform sensitivity measurements of the gaseous effluent monitors be waived until 30 days beyond the resumption of reactor operations. All other required tests, such as the sensitivity determination of the particulate effluent monitors shall be performed per routine

4.1  
procedures.

If you require additional information or have any questions, please contact me. Your consideration of this request will be greatly appreciated.

Yours truly,

  
Louis G. Henry

General Manager

cc: V. P. Rennie  
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