

DEC 19 1991

Docket No. 030-20934

License No. 37-23341-01

Interstate Nuclear Service Corporation  
ATTN: George Bakevich  
Regional General Manager  
295 Parker Street  
P. O. Box 21  
Springfield, Massachusetts 01551

Dear Mr. Bakevich:

Subject: Discharges to Sewer by Royersford, Pennsylvania Plant

This refers to your letter dated May 21, 1991, regarding plans to investigate methods of reducing discharges of radioactive material to the Royersford Wastewater Treatment Facility (RWTF) from the Interstate Nuclear Service Corporation (INS) facility in Royersford, Pennsylvania. This also refers to the telephone conversations between Michael J. Bovino and Betsy Ullrich of this office on October 9 and 23, 1991.

As discussed during more recent telephone conversations, we understand that you and members of your staff will attend a meeting on January 21, 1992, at 10:30 a.m. in the NRC Region I Office at 475 Allendale Road, King of Prussia, Pennsylvania to discuss the results of your studies to reduce the quantity of licensed material in effluent, and your plans to implement the results of these studies at the Royersford facility.

We understand that since May 1991 you have completed a solubility study of effluent released from the INS Royersford facility using current waste water treatment methods, and that you installed an ultrafiltration system and a reverse osmosis system at the site in September to test their effectiveness in reducing the quantity of radioactive material in your effluent. We also understand that preliminary results of these studies are available and you are willing to provide us this information. During the telephone conversations, your staff stated that the current filtration system removes nearly all particles greater than 20 microns in diameter. Laboratory filtration using filters with 0.1 micron pore size reduces cobalt-60 by only 30 percent and produces no reduction in the concentration of cesium-137, indicating that these materials are largely or entirely soluble following current treatment. Early results of the ultrafiltration and reverse osmosis systems indicate the systems are effective in reducing the amount of radioactive material in the effluent, but tests continued into November.

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We would appreciate a report of the testing by December 31, 1991 so that we can review it prior to the meeting. In addition to the results of the solubility testing, the ultrafiltration and reverse osmosis, please describe the results of testing of the new flocculant, adjusting pH, and microfiltration discussed in your May 21 letter.

We believe that reductions in the concentrations of radioactive material in your effluent are important.

Thank you for your cooperation in this matter.

Sincerely,

**Original Signed By:**  
**John D. Kinneman**

John D. Kinneman, Chief  
Research, Development &  
Decommissioning Section  
Division of Radiation Safety  
and Safeguards

Enclosure:  
Directions to NRC Region I Office

cc:  
Public Document Room (PDR)  
Nuclear Safety Information Center (NSIC)  
Commonwealth of Pennsylvania  
Michael J. Bovino, Manager  
Health Physics and Engineering

Borough of Royersford  
ATTN: Michael Claflin, Superintendent  
Wastewater Treatment Facility  
300 Main Street  
P.O. Box 188  
Royersford, Pennsylvania 19468

Commonwealth of Pennsylvania  
Department of Environmental Resources  
ATTN: Ivna Shanbaky  
1875 New Hope Street  
Norristown, Pennsylvania 19401

Commonwealth of Pennsylvania  
Department of Environmental Resources  
ATTN: Margaret Reilly  
P.O. Box 2063  
Harrisburg, Pennsylvania 17120

bcc:

Region I Docket Room (w/concurrences)

E. Ullrich, RI

J. Kinneman, RI

M. Miller, RI

~~RI:DRSS~~  
~~Ullrich~~

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~~Kinneman~~

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