

January 28, 2005

Dr. Hermann A. Grunder
Laboratory Director
Argonne National Laboratory
9700 S. Cass Avenue
Argonne, IL 60439

Dear Dr. Grunder:

We recently learned that four fuel rods are going to be shipped from the North Anna Power Station to your laboratory for testing in the Fuel Reliability Program administered by the Electric Power Research Institute (EPRI). As its name implies, the EPRI program focuses on fuel performance during normal operation and anticipated operational events. The U.S. Nuclear Regulatory Commission (NRC) also has a fuel research program, but our program focuses on safety under off-normal conditions. In particular, we are studying the behavior of high-burnup fuel under postulated reactor accident conditions and the conditions to which fuel is exposed during transportation and storage. Argonne National Laboratory (ANL) is performing this safety-related research for us in Illinois, where some of EPRI's work will also be done.

Because U.S. power reactors are now widely using advanced fuel designs, it is important for the NRC to test some of this material after it has accumulated substantial burnup. We have, in fact, been planning such tests and looking for appropriate fuel rods for testing. The impending shipment presents an unusually good opportunity to acquire such fuel without requiring extra shipments. It is NRC's intent to sponsor safety testing at ANL, if EPRI and ANL can include extra rods in the already planned shipment (as discussed below) and if ANL can accept the fuel and perform the testing. We have discussed this opportunity with EPRI, and we believe they are willing to accommodate our request.

Specifically, we would like to obtain two additional high-burnup fuel rods with advanced alloy cladding, such as ZIRLO and M5, for testing at ANL. We believe that the North Anna Power Station has such fuel rods and would make them available to the NRC. We are, therefore, asking EPRI and ANL to make arrangements to ship the fuel to Argonne Illinois, and requesting that ANL agree to accept the fuel and test it as an extension of your ongoing NRC fuel research program. Your agreement will allow us to proceed with definitive arrangements for the work.

Sincerely,

/RA/Carl J. Paperiello

Carl J. Paperiello, Director
Office of Nuclear Regulatory Research

cc: Dr. P. Finck, ANL
Dr. H. Planchon, Jr., ANL
Dr. R. Yang, EPRI

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