Department of Energy
Washington, DC 20585

August 19, 1997

The Honorable Greta J. Dicus
Commissioner
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Commissioner Dicus:

Thank you for your letter of July 23, 1997, concerning Radiation Effects Research Foundation (RERF) studies in the Southern Urals. I agree with your suggestion to promote information exchange by inviting an RERF representative to a Joint Coordinating Committee for Radiation Effects Research (JCCRER) meeting. Already, my office and the National Academy of Sciences (NAS), which provides scientific oversight activities for the RERF, are working together to promote international collaborations on radiation effects research by RERF scientists. As part of this effort, we are inviting Dr. Shigenobu Nagataki, the new chairman of the RERF, to speak at the JCCRER meeting in Moscow in May 1998. We are also extending an invitation to Dr. Evan Douple, the new Director of the NAS Board on Radiation Effects Research, to participate in the next joint JCCRER Executive Committee (EC) meeting planned for early December 1997 in Moscow.

With regard to ongoing work in the Urals, the RERF participates in one JCCRER project led by Dr. Elaine Ron of the National Cancer Institute (NCI). This project, funded by NCI, is a collaboration among the Urals Research Center for Radiation Medicine, the First Institute of Biophysics, RERF, and NCI. The enclosed information, previously provided to you in the Briefing Book of the October 9, 1996, JCCRER Delegation Meeting, describes the project. In keeping with the new management direction of the American JCCRER, I am counting on the Department of Health and Human Services' representatives to the JCCRER and EC to keep us all up to date on the project as it proceeds.

If you and your staff have any further questions about JCCRER coordination, please contact Mr. Frank Hawkins, Director, Office of International Health Programs, on (301) 903-2476. I am relying on him and Dr. Leonid Bolshov (EC Co-chairs) to ensure the work progresses smoothly.

As always, I value your input about the direction of the JCCRER program and related administrative and funding issues.

Sincerely,

Tara O'Toole, M.D., M.P.H.
Assistant Secretary
Environment, Safety and Health

Enclosure

cc w/enclosure:
Peter Henry, HHS
Richard Jackson, CDC
Evan Douple, NAS

(1.2b) Evaluation of Cancer Mortality in Relation to Radiation Exposure Among the Persons Living in the Vicinity of the Techa River (conducted through contract between NCI, RERF, and URCRM)

Aim: To gain information necessary for evaluation of cancer risks from protracted radiation exposure of adult populations, children and adolescents.

Feasibility Study: This is a 3-year study (American PI: Ron, NCI, Russian PI: Kossenko, URCRM) to evaluate cancer mortality in Techa River cohort, and to attempt to determine the feasibility of establishing and studying a cohort of 40,000 children who were potentially exposed to I-129 releases from Mayak. Included in this study is also a cohort of workers (discussed under project 2.2).

Results: The Techa River Cohort, (established by Dr. Kossenko et al. in 1967) includes about 26,000 individuals that were exposed to radioactive liquid wastes discharged into the Techa River between 1949 to 1956. The total radionuclides dose was estimated at 3 million Ci. of which significant portion (more than 25 percent) was Sr-90 and Cs-137. The average effective dose to about 5 percent of this cohort was estimated at 1.40 Sv, and the additional 15 percent at about 0.5 Sv. The upper limit was 4.0 Sv. Significant increase in the risk of leukemia and several cancers was observed.

The Mayak Children Cohort consists of individuals born between 1948 to 1973, who lived for at least one year before the age of 15 in Ozersk. The work of constructing the registry has been initiated.

The **identification of internal and external comparison groups** for the study presents difficulty. Consideration is given to: **external**: regional or national mortality rate (see discussion under 2.2), and **internal**: individuals in Techa cohort with low exposure, cohort that moved to the region after radiation levels declined, or individuals living in near-by unexposed villages are being considered.