Battelle
Pacific Northwest Laboratories
P.O. Box 999
Richland, Washington U.S.A. 99352
Telephone (509)
Telex 15-2874

July 6, 1984

Dr. Edward O'Donnell
U. S. Nuclear Regulatory Commission
MS-1130SS
7915 Eastern Avenue
Silver Springs, MD 20910

Dear Ed:

During review of our Chalk River 189, the Richland Operations Office of DOE was wondering if we had some sort of international agreement with the Canadian government to conduct our research study at Chalk River. I know some of you got calls from DOE and from our PNL Contracts offices.

Enclosed are two copies of just such an international agreement. Since Rico got a call from DOE, he may want a copy for his file. Together with the original letter from Doug Champ dated July 26, 1983, indicating AECL approval to conduct the work at Chalk River, I believe we have satisfied any DOE questions in this regard.

We have initiated Task 1 of the new program even though we have not yet received final written approval from Doug Champ to conduct this study at Chalk River. Doug and his management will meet next Tuesday, July 10, to approve the study. Doug seemed quite optimistic that such an approval will be forthcoming.

We also need some clarification from you on what radionuclides should be included in this study. It was my understanding that you wanted an assessment of essentially all of the radionuclides specified in 10 CFR 61 (i.e., $^{3}H$, $^{14}C$, $^{59,63}Ni$, $^{60}Co$, $^{90}Sr$, $^{94}Nb$, $^{99}Tc$, $^{129}I$, $^{137}Cs$, Pu, Am, and Cm), since the occurrence of these radionuclides at the chemical pit disposal area is one of the great advantages of the Chalk River site. Since your statement of work describing the tasks in this project did not specify exactly what radionuclides should be measured, our hydrologists feel that a demonstration of the modeling of the site performance could be accomplished using only a few ($^{3}H$, $^{90}Sr$, $^{137}Cs$) radionuclides. I feel we need to include as many radionuclides as possible, since the greatest potential errors in predicting radionuclide migration in groundwaters will probably be associated with the unique geochemistry which either enhances or retards the mobility of such radionuclides as $^{55}Fe$, $^{60}Co$, $^{63}Ni$, $^{94}Nb$, $^{99}Tc$, $^{129}I$, Pu, Am and Cm. Could you please give me your perspective in this regard.

I will give you a call in a few days to discuss this further with you.

Best regards.

Sincerely,

Dave

David E. Robertson
Staff Scientist
Radiological Sciences Department

DER:mfm

Attachments

Project Number _____

Battelle
Pacific Northwest Laboratories

Internal Distribution
LD Williams
File TD 1194

Date June 22, 1984

To [redacted] Robertson

From Greg Turner Greg

Subject INTERNATIONAL AGREEMENTS BETWEEN THE U. S. AND CANADIAN GOVERNMENTS

An Agreement for Cooperation Concerning Civil Uses of Atomic Energy Between the Government of the United States of America and the Government of Canada has been in place since July 21, 1955. The most recent extension of this cooperative agreement was signed on July 9, 1980 and extended the period of agreement to January 1, 2000.

Your ongoing characterization work at Chalk River, Canada definitely falls within the scope of this cooperative agreement. I have passed this information along to Paula Clark, DOE-RL.

Attachment

2