March 27, 1941

Dr. L. J. Briggs, Director National Bureau of Standards U. S. Department of Commerce Washington, D. C.

## CONFIDENTIAL

Dear Sir:

c o p

This is to confirm our verbal agreement to deliver you eight tons of black uranium oxide manufactured from Canadian ore. This will be packed in 50-pound cardboard cases. The price will be U. W. \$2.05 per pound, delivered New York.

Following your suggestion, we agree that it will be advisable for many purposes, and especially in obtaining export licenses, to arrange this through the National Research Council of Ottawa.

Delivery of these eight tons of black uranium oxide can be effected over a period of six weeks, part of it being delivered as soon as you can arrange to accept it.

Will you please confirm to us your acceptance of this and advise us whether you will be getting in touch with the National Research Council or whether we should get in touch with them direct. We will await your advice on this.

Very truly yours

CANADIAN RADIUM & URANIUM CORPORATION

Boris Pregel, President

BP/bb

June 5, 1941

Professor George B. Pegram Dept. of Physics Columbia University New York, New York

Dear Professor Pegram:

We have already explained to you that we would be very glad to rent to you without charge a quantity of crude Uranium. However, you advise that you want the Black Uranium Oxide. We do not carry large quantities of Black Uranium Oxide in stock and consequently any large quantity would have to be produced specially for you. The cost of production of the Black Uranium Oxide is about 60% per pound.

Confirming the conversation I had with you and Dr. Szillard, we are willing to supply you with five tons of Black Uranium Oxide of our regular commercial quality on the following conditions:

Payment from you of 30% per pound on delivery of the five tons of Black Uranium Oxide, all other expenses for our account.

The delivery of this five tons of Uranium will be made within a period of six weeks from the date of your acceptance of this proposal. During the same six weeks you will have the option on the delivery of an additional five tons under the same conditions as herein, making a total of ten tons.

In the event that or any part of this quantity of Uranium is purchased by the United States Government or yourselves prior to July 15, 1942, we will refund to you the 30¢ per pound in the first instance, and in the second instance it will be deducted from the purchase invoice.

It is understood that should this Uranium not be acquired by the United States Government or yourselves prior to July 15, 1942, it will be returned to us in the same unaltered form and in the same packages as when delivered to you, and we will retain the 30¢ per pound.

Very truly yours

CANADIAN RADIUM & URANIUM CORPORATION

BP/bb

Boris Pregel, President

C<sub>O</sub>P

June 5, 1941

Professor George B. Pegram Dept. of Physics Columbia University New York, N. Y.

Dear Professor Pegram:

We have already explained to you that we would be very glad to rent to you without charge a quantity of crude Uranium. However, you advise that you want the Black Uranium Oxide. We do not carry large quantities of Black Uranium Oxide in stock and consequently any large quantity would have to be produced specially for you. The cost of production of the Black Uranium Oxide is about 60¢ per pound.

Confirming the conversation I had with you and Dr. Szilard, we are willing to supply you with five tons of Black Uranium Oxide of our regular commercial quality on the following conditions:

Payment from you of 30% per pound on delivery of the five tons of Black Uranium oxide, all other expenses for our account.

The delivery of this five tons of Uranium will be made within a period of six weeks from the date of your acceptance of this proposal. During the same six weeks you will have the option on the delivery of an additional five tons under the same conditions as herein, making a total of ten tons.

In the event that or any part of this quantity of Uranium is purchased by the United States Government or yourselves prior to July 15, 1942, we will refund to you the 30¢ per pound in the first instance, and in the second instance it will be deducted from the purchase invoice.

It is understood that should this Uranium not be acquired by the United States Government or yourselves prior to July 15, 1942, it will be returned to us in the same unaltered form and in the same packages as when delivered to you, and we will retain the 30¢ per bound.

Very truly yours,

CANADIAN RADIUM & URANIUM CORPORATION

Signed: Boris Pregel, President

1

CABLE ADDRESS
"RADENTA"
CODES USED
BENTLEYS
A. B. C. (5TH EDITION)

### CANADIAN RADIUM & URANIUM CORPORATION

630 FIFTH AVENUE NEW YORK

June 5, 1941

Dr. Leo Szilard Dept. of Physics Columbia University New York, New York

Dear Dr. Szilard:

I enjoyed very much the conversation we had several days ago and appreciate very much your willingness to assist us in securing material which we require for different universities and for our own work.

We would like to secure 50 grams of this Beryllium metal and would be very thankful if you will tell us where we can pick it up.

With kind regards, I remain

Sincerely yours

CANADIAN RADIUM & URANIUM CORPORATION

BP/bb

Boris Pregel, President

# CANADIAN RADIUM & URANIUM CORPORATION

630 FIFTH AVENUE NEW YORK

June 10, 1941

Dr. Leo Szillard Dept. of Physics Columbia University New York, New York

Dear Dr. Szillard:

We would like to call your attention to the fact that the Beryllium Powder, which you were kind enough to order for us, should be 300 mesh.

Assuring you of our appreciation and with kind regards, I remain

Sincerely yours

CANADIAN RADIUM & URANIUM CORPORATION

Boris Pregel, President

50+24  $1250\times600=6$  3000=6 3000=6

1000 1000 1000 X 1.35 1.25

24 200 1000 X 1.35 1.25

Washington 1000 X 1.35 1.25

Who kingel It & 6

50

1000 Bords

### 630 Fifth Avenue

New York

June 11, 1941

Professor George B. Pegram Dept. of Physics Columbia University New York, New York

Dear Professor Pegram:

Thank you for your letter of the 7th inst., enclosing an order of Columbia University, for the preparation of five tons of Black Uranium Oxide.

I wish to inform you that in spite of the difficulties due to tin plate shortage, I have been successful in obtaining the necessary cans which will be of the following description:

Size: Imperial gallon Dimensions: 6 5/8" diameter 9 3/8" high will stand up to 2500 Fahrenheit.

A power machine will be supplied for hermetically sealing these cans. The cost of the cans will be 19% per can f.o.b. Hamilton, Ontario, Plus sales tax of 8%.

I have also been successful in obtaining a power machine necessary for sealing the cans, and everything possible will be done to hurry this delivery.

I am pleased to know that the arrangements which I explained to you meet with your approval and wish to assure you again that I will always be glad to cooperate with you in any problems you may have in connection with Radium or Uranium products.

Very truly yours,

CANADIAN RADIUM & URANIUM CORPORATION

Boris Pregel, President

cc: Szilard

June 17, 1941

Mr. Boris Pregel 630 Fifth Avenue New York, New York

Dear Mr. Pregel:

I am writing to you about the uranium oxide which you are going to pack in sealed cans in Port Hope.

We are very anxious to avoid any contamination of this material in the process of packing, and would appreciate very much if you would ask your chemists at Port Hope under no circumstances to use any flux which contains boron in soldering these cans. There is no objection to using resin as a flux.

It seems that we have to supervise very closely the purity of the uranium oxide which is being shipped, and I would therefore like to ask you to have a sample of perhaps half a pound packed in a small container (which need not necessarily be sealed) for every can which you ship. All the cans should be numbered, and every sample should bear the number of the corresponding can.

The samples should be shipped to Dr. D. P. Mitchell, care of Dr. Modden, National Bureau of Standards, Washington, D.C. We shall have every sample tested for boron and other impurities in which we are interested. The system proposed will enable us to take action at once, if there should be an increase in the amount of impurities. The samples which we have tested so far are satisfactory, but the level of impurities is just tolerable, and any increase beyond the present level will have to be detected and taken into account by us.

I am sending you two copies of this letter for your convenience so there should be no delay in relaying our request to Mr. French and the Port Hope refinery.

The oxide which will now be packed in sealed cans in Port Hope ought to be stored there until you receive shipping instructions. I am sorry that I have to bother you with such details, but unfortunately it is necessary for us to go to some trouble in order to make sure that our experiments are not endangered by uncontrolled costaminations of our materials.

cc: 2-Pregel 2-Mitchell Yours sincerely,

2. L.

(Leo Szilard)

l-Pegram l-Fermi LZ:FL-Szilard

June 17, 1941

Mr. Boris Pregel 630 Fifth Avenue New York, New York

Dear Mr. Pregel:

I refer to your letter dated June 5, 1941, which you addressed to Professor G. B. Pegram and in which you agreed to let us have five tons of uranium oxide until July 15, 1941, under conditions which are specified in your letter. In the absence of Professor G. B. Pegram, who is the director of the project involved, I am writing to you to state the following:

The five tons of uranium oxide referred to above will be used in experiments which are being carried out by Columbia University under a contract with the National Defense Research Committee.

Very truly yours,

L. R.

(Leo Szilard)

LS:FLL

cc: 1-Pegram
2-Mitchell
1-Fermi

## CANADIAN RADIUM & URANIUM CORPORATION

630 FIFTH AVENUE NEW YORK

June 19, 1941

Dr. Leo Szilard
Department of Physics
Columbia University
New York, New York

Dear Dr. Szilard:

I received your letters of the 17th and 18th inst., for which I thank you.

Concerning the uranium oxide, which is to be packed in sealed cans in Port Hope, I immediately sent copies of your letter to Canada and am awaiting their comments on this subject, which I will transmit to you as soon as I receive it.

You can feel assured that I will do all in my power to give you satisfaction.

Sincerely yours

CANADIAN RADIUM & URANIUM CORPORATION

BP/bb

Boris Pregel, President

Whiel solew

CABLE ADDRESS
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CODES USED
BENTLEYS
A.B.C. (5TH EDITION)

## CANADIAN RADIUM & URANIUM CORPORATION

630 FIFTH AVENUE NEW YORK

June 21, 1941

Dr. Leo Szilard Dept. of Physics Columbia University New York, New York

Dear Doctor Szilard:

Enclosed please find a copy of a letter regarding your entry into Canada received this morning from the Eldorado Gold Mines Ltd.

I would appreciate it if you will call me up on the telephone upon receipt of this letter, as I have a communication which will be of interest to you.

Very truly yours

CANADIAN RADIUM & URANIUM CORPORATION

BP/bb enc.

Boris Pregel, President

## CANADIAN RADIUM & URANIUM CORPORATION

630 FIFTH AVENUE NEW YORK

July 2, 1941

Dr. Leo Szilard Dept. of Physics Columbia University New York, New York

Dear Dr. Szilard:

We were informed a few minutes ago by telephone from Canada that the cans which were to be delivered yesterday, and the packing of which was to start this morning, will not be delivered for another two weeks. This is very regrettable. However, this delay is caused by circumstances beyond our control. The refinery received six cans only and they were never ordered. Can you do something to speed up the delivery by the American Can Company?

This delay is especially annoying, because the entire quantity of material is ready at the refinery, and because it has to be packed fresh, the material lies in an unfinished condition, as the last operation must be performed just before it is packed into the cans.

Very truly yours

CANADIAN RADIUM & VRANIUM CORPORATION

BP/bb

Boris Pregel President

Coffied 2/3/41

3 carlos

### CANADIAN RADIUM & URANIUM CORPORATION

630 FIFTH AVENUE NEW YORK

July 16, 1941

Dr. Leo Szilard Dept. of Physics Columbia University New York, New York

Dear Dr. Szilard:

In connection with your request concerning the type of mask used in the process of ore roasting and the treatment of black oxide, those used by our refinery are of the following manufacture:

R 1000-CC2, with an ordinary dust filter, made by American Optical Co., and bought by us from Consolidated Optical Co., Toronto.

R 1000-T, with a toxic dust cartridge, also made by American Optical.

Dupor 46, supplied by Safety Supply Co., Toronto.

Pulmosan M3.

Any of those listed above have given adequate protection against dust in the work on black oxide.

We take this opportunity to remind you of your promise to put at our disposal some pure beryllium in plaque form. We believe that we can grind it and will therefore appreciate it very much if you will give us this material as soon as possible.

Very truly yours

CANADIAN RADIUM & URANIUM CORPORATION

Boris Fregel, President

BP/bb

Copied 7-17-41 LH

#### CANADIAN RADIUM & URANIUM CORPORATION

#### 630 Fifth Avenue

New York

July 30, 1941 (Copied July 31, 1941)

Dr. D. P. Mitchell 828 Physics Bldg. 120th Street & Broadway New York, New York

Dear Dr. Mitchell:

We are pleased to inform you that shipment was made from Port Hope on July 25th of the 10,000 lbs. of Eldorado Black Oxide covered by Columbia University Order No. 483026 of June 10th.

The shipment was made to Dr. P. P. Alexander, c/o
Metal Hydrides Incorporated, Beverly, Massachusetts
less the ½-lb. samples from each can, which later were
sent to Dr. Rodden, National Bureau of Standards,
Washington, D. C. — this in accordance with your instructions. Later we will supply you with shipping list
and analyses.

The invoice in triplicate has been sent to the Purchasing Agent, 304 University Hall, Columbia University, New York City, and is on the basis of agreement and as per conditions of order No. 483026.

Yours very truly, CANADIAN RADIUM & URANIUM CORPORATION

(Signed)

H. B. Kearney, Sales Manager

HBK/ts

#### Copies

1 Pegram

l Fermi

1 Szilard

September 18, 1941

Dr. Boris Pregel c/o Canadian Radium and Uranium Corporation 630 Fifth Avenue New York City

Dear Dr. Pregel:

Enclosed you will find a copy of the memorandum which I am handing to Professor Pegram on the subject of today's conversation.

Very truly yours,

(Leo Szilard)

LS:MEB

Enclosure

October 4, 1941 Mr. Boris Pregel Canadian Radium & Uranium Corporation 630 Fifth Avenue New York City Dear Mr. Pregel: I am writing to you to confirm that Columbia University is renting from your firm twenty-one (21) tubes containing approximately two grams (2 gms.) of radium for a year. We shall pay a rental of \$2,500.00 per year payable within three months (3 mos.) after receipt of the radium. You will carry insurance for this radium, which we propose to use most of the time on the grounds of Columbia University. The conditions under which this radium is used do not make it possible to keep it in a safe, as the radium will be frequently used in experiments which are allowed to run overnight in the absence of personnel. Your cost which arises out of the insurance will be reimbursed to you by Columbia University up to the amount of \$500.00 per year. If, in the course of our experiments, we should find that it is not possible to use this radium for certain experiments which we have in mind, we would then return the radium to you and you would refund to us payments which we have made in advance. In this case, you would retain, however, the rental for those months during which we had the use of the radium and also the corresponding amount of your cost for insurance. (Accordingly, the rental would in this case amount to \$210.00 for each month during which or during part of which we had the use of the radium.)

The rental period will start on October 7. 1941.

I wish to tell you on this occasion that we very much appreciate your kind cooperation in this matter.

Since I am not authorized to enter into financial commitments on behalf of Columbia University, I shall ask Professor G. B. Pegram to countersign this letter.

Yours very truly,

(Leo Szilard)

George B. Pegram

LS:MEB

Copies 1 Pegram

1 Fermi 1 Szilard 2 Mitchell

(Leo Szilard)
Columbia Elniversity
in the City of New York



Mr. Boris Pregel Canadian Radium & Uranium Corporation 630 Fifth Avenue
New York City

broft October 6, 1941 Mr. Boris Pregel Canadian Radium & Uranium Corporation 630 Fifth Avenue New York City Dear Mr. Pregel: I am writing to you to confirm that Columbia University is renting from your firm twenty-one (21) tubes containing approximately two grams (2 gms.) of radium for a year. We shall pay a rental of \$2,500.00 per year payable within three months (3 mos.) after receipt of the radium. The twenty-one tubes of radium which you will supply us will be received by us in a sealed container, and we will not remove the radium-containing tubes from this container without your consent. The conditions under which this radium will be used do not make it possible to keep it in a safe, since it will be frequently used in experiments which are allowed to run over-night in the absence of personnel. The radium will be mostly used within the grounds of Columbia University, and occasionally it may be used in some other laboratory within the United States. We shall always take the same precautions to safeguard this radium as we usually take in connection with all our other valuable laboratory equipment. Since Columbia University cannot take any responsibility for loss of radium due to any cause, it is proposed that you should insure this radium with an insurance company of your choice, and Columbia University will refund you the cost arising out of this insurance up to \$500.00 per year. Columbia University will then not be responsible to you or anybody else for loss of radium due to any cause, unless there is a violation on our part of the conditions under which we agreed to use the radium.

If, in the course of our experiments, we should find that it is not possible to use this radium for certain experiments which we have in mind, we would then return the radium to you and you would refund to us payments which we have made in advance. In this case, you would retain, however, the rental for those months during which we had the use of the radium (\$210.00 for each month during which or part of which we had the use of the radium), and also the corresponding amount of your cost for insurance.

The rental period will start on October 7, 1941.

I wish to tell you on this occasion that we very much appreciate your kind cooperation in this matter.

Since I am not authorized to enter into financial commitments on behalf of Columbia University, I shall ask Professor G. B. Pegram to countersign this letter.

Yours very truly,

(Leo Szilard)

George B. Pegram

LS: MEB

Conies
I Pegram
l Fermi
l Szilard
s Mitchell
l Mr. Pregel /

P.S.

In case you wish to discontinue the present arrangement, you can give us at any time four weeks notice, and we shall then return within four weeks the radium to your firm, and the financial adjustment will be the same as if the radium had been returned to you on our initiative.

L.S.

will

## CANADIAN RADIUM & URANIUM CORPORATION

630 FIFTH AVENUE NEW YORK

October 7, 1941

Columbia University Dept. of Physics New York, New York

## Attention, Dr. Leo Szilard

Dear Dr. Szilard:

In connection with our radium which you are to send to our laboratory, to be put into a container, we wish to repeat the information given you by telephone. The address of our laboratory is as follows:

American Radium Industries, Inc. 43 West 16 Street New York City

We will bring the remaining 5 tubes in order to complete the two grams.

So as to be able to deliver the two grams to the University with sufficient lead protection, it will be necessary that you send to the laboratory at the same time you return the radium, the empty 4" lead container belonging to us, which you are holding at the present time at the University.

Will you please inform us by telephone exactly when you intend to make this delivery.

Very truly yours

CANADIAN RADIUM & URANIUM CORPORATION

BP/bb

Boris Pregel, President

October 8, 1941

George B. Pegram, Ph. D. Dean, Physics Department Columbia University
New York, New York

Dear Dr. Pegram:

The receipt of your letter of October 6th is hereby gratefully acknowledged.

This will also serve to confirm our understanding contained in that letter whereby we lease to Columbia University a quantity of approximately two grams of radium for a period of one year. The price of this rental is to be \$2500 per year, payable within three months after the receipt of the radium by you.

We are glad to inform you that the cylinder which was specially prepared to take the two grams of radium (by Columbia University) was received this morning and was filled at our laboratory in the presence of Dr. Marshall sent by you for the purpose, sealed and delivered to Columbia University as per original packing memorandum which we are enclosing herewith for your records. The cylinder, as made by Columbia University, could contain only 20 tubes, totalling 1934.90 milligrams of radium.

It is also understood that the addium is insured from this date on at annual premium of \$500. It is further understood that normally the radium will be used within the grounds of Columbia University. However, whenever you will have occasion to use it at some other location, we will be grateful to you to notify us immediately of the intended transfer in order that we might in turn give notice to our insurance company of the whereabouts of the radium.

It is understood that if in the course of your experiments you find that it is not possible to use this radium for certain experiments which you have in mind, you have the option to return the radium to us before the end of the year's period as specified above and we will refund to you payments which have been made in advance. In this case, we will retain the rental payments for those months during which you had the use of the radium (\$210 for each month that you used the radium), and also a corresponding amount for insurance costs.

If we should wish to discontinue the present arrangement, we will give you four week's notice at any time and you shall then return the radium to us within four weeks and financial adjustment would be the same as if the radium had been returned on your initiative.

All the above represents the exact terms of the letter which you addressed to us.

George B. Pegram, Ph. D. -2-October 8, 1941 The radium having been delivered today, the rental period begins this day, October 8th, 1941. Enclosed you will find our invoice in duplicate for the full term of one year. We will be obliged to you if you would submit this invoice to your Treasury Department with instructions to pay three months hence. as agreed; i.e., on January 8th, 1942. We are glad of this opportunity to serve you and assure you of our full cooperation at any time in the future. Yours very truly, CANADIAN RADIUM & URANIUM CORPORATION Boris Pregel, BP/ts encs.

Copies for 1 Pegram 1 Fermi 1 Szilard 2 Mitchell

October 18, 1941

Mr. Boris Pregel Canadian Radium & Uranium Corporation 630 Fifth Avenue New York City

Dear Mr. Pregel:

Enclosed you will find a confirming order for ten pounds (10 lbs.) of uranium nitrate which has already been received on our behalf by Dr. Rodden.

Very truly yours,

fr

(Leo Szilard)

LS:MEB

Enclosure

5650 Ellis Avenue

April 21, 1952

Mr. Boris Pregel 630 Fifth Avenue New York, New York

Dear Mr. Pregel:

I had a letter from The New York Academy of Sciences in which reference was made to your name. I am therefore sending you enclosed a copy of my answer for your information.

With best wishes,

Sincerely yours,

Leo Szilard

LS/sds Enclosure BORIS PREGEL
630 FIFTH AVENUE
NEW YORK 20, N.Y.

April 28, 1952

Prof. Leo Szilard
The University of Chicago
Institute of Radiobiology and
Biophysics
5650 Ellis Avenue
Chicago 37, Ill.

Dear Prof. Szilard:

Thank you very much for your thoughfulness in sending me a copy of the letter which you addressed to the New York Academy of Sciences and which I read with great interest.

Hoping to see you soon and with best wishes, I remain,

Very sincerely yours,

Boris Pregel

BP:np

betober 12, 1953 B. Regel 18 rue Auguste Varquerie Paris XVI Dear De Szilard, I just received to day the information about your appromhenent as Professor of Biophy sires at Brawdeis University.

elles I congreshelate you and not you

the greatest success in this new phase of

your life. Drefret only to be too fan from Waltham, otherwise I would of lived to anoth as one of your students. We will be have home in New Your in November and hope to see you on one of your trips to the cit. Mrs Prefet joins me in sending you our undert regards very condrally yours Am Pregs

BORIS PREGEL 630 FIFTH AVENUE NEW YORK 20, N.Y.

March 3, 1960

Dr. Leo Szilard Room 812, Memorial Center 444 East 68 Street New York City

Dear Dr. Szilard:

This morning I read your article in the "Bulletin of Atomic Scientists" and the interview you gave to the "Newsweek", and I congratulate you on your foresight and courage.

In the meantime I learned from our mutual friends that you are feeling better, and I am extremely happy to hear it, and I hope that this amelioration will continue until full recovery.

I will be very thankful to you if you would accept to have luncheon or dinner with me at your convenience as soon as you leave the hospital.

With warmest personal regards, I remain,

Very sincerely yours,

Boris Pregel

BP:jff