June 6, 1941

Eldorado Gold Mines, Ltd. Port Hope Refinery Port Hope, Ontario Canada

Attention of Dr. Horn

Dear Dr. Horn:

I refer to a conversation which I had with Mr. French yesterday, who asked me that certain shipments be addressed to your attention.

I am sending you today, by Railway Express, a can of Glyptal which could be used for sealing tin cans filled with uranium oxide. It is proposed to make certain shipments of dry uranium oxide in tin cans and to seal them by soldering or by Glyptal, whichever way of sealing proves to be more expedient.

A shipment of five hundred tin cans of about one gallon size, also addressed to your attention, will probably leave from here by Railway Express early next week. Perhaps since these cans will be re-exported within a year by your company, it will be possible for you to arrange for a refund of duty.

Yours very truly,

(Leo Szilard)

L. G

LS:H

cc: 1 - Pegram

1 - Fermi 1 - Szilard

2 - Mitchell

January 4, 1941

Dr. Marcel Pochon Radium Refinery Eldorado Gold Mines, Ltd. Port Hope, Ontario Canada

Dear Dr. Pochon:

Mr. Luber of the Central Trading Co., New York City, suggested that I should write to you in connection with the following matter.

For certain experiments which are being planned we are interested in finding out something about the possibility of reducing commercial uranium oxide to uranium dioxide. The quantities involved are of the order of magnitude of tons and we might need one to five tons within the next six months or within a year.

I understand that uranium dioxide has been industrially used in the manufacture of ferro-uranium, and Mr. Luber thought that the experience which you had in France might enable you to give us the desired information. We would particularly like to know whether uranium dioxide could be prepared in one-ton lots in your plant, or if that is not feasible what other firms you would recommend and the particular process you would think best to use.

Thanking you for the attention which you are giving this matter, I am

Very truly yours,

X. R.

(Leo Szilard)

LS: H

CC: 1 - Pegram

1 - Szilard

2 - Mitchell

ELDORADO GOLD MINES LTD.

80 King St, West Toronto, Ontario

STATEMENT OF ANALYSIS

Shipped to: Metal Hydrides Inc., Beverly, Mass

Product: Black Oxide of Uranium

Origin: Canadian

Lot Special Shipping numbers Cans 401-500

REPORT

Dry weight:

U₃0₈ 97.4% Si0₂ .26% Acid H₂S Metals 1.04% Fe₂0₃ & Al₂0₃ .01% SO₄ .5 %

July 29, 1941

-105

Copied: mac 8-8-41

ELDORADO GOLD MINES LTD.

80 King St., West Toronto, Ontario

STATEMENT OF ANALYSIS

Shipped to: Metal Hydrides Inc., Beverly, Mass.

Product: Black Oxide of Uranium

Origin: Canadian U-22A

Lot: Special Shipping Numbers: Cans 1 - 50

REPORT

Dry Weight:

 $U_3^0_8$ 97.8% 3.0_2 .3% 3.0_3 Acid $H_2^0_3$ Metals 1.2% $1.0_3^0_3$.15% $1.0_3^0_4$.1%

July 29, 1941

Copied: mac 8-8-41

Columbia University in the City of New York

DEPARTMENT OF PHYSICS

October 20, 1941

Mr. Marcel Pochon Eldorado Gold Mines, Ltd. Port Hope Ontario, Canada

Dear Mr. Pochon:

I expected to see Mr. French this morning, but I understand that he will be here tomorrow morning instead. I hope that we can then clear up some misunderstanding which seemed to have occurred in connection with the quantity of pure uranium oxide which you proposed to make for us. I suppose that you will have a telegram from Mr. French in the course of the day tomorrow.

In the meantime I can recapitulate the technical part of our arrangement so as to make sure that there is no misunderstanding about it.

We sent you one hundred pounds (100 lbs.) of uranium oxide, and it was arranged that you should do the following with it: First of all, mix up this uranium oxide within itself so as to be able to withdraw a representative sample of ten pounds (10 lbs.). The remaining ninety pounds (90 lbs.) were supposed to be leeched three (3) times and calcined and ground between each two (2) leechings and after the last leeching. A representative sample of ten pounds (10 lbs.) of calcined and ground uranium oxide should be withdrawn after each leeching, i.e., three (3) ten-pound (10-lb.) samples of leeched material would be so withdrawn. All the four (4) ten-pound (10-lb.) samples were to be sent to Dr. Rodden, Chemistry Building, National Bureau of Standards, Washington, D. C., each with a covering letter. Carbon copies of these covering letters were supposed to be sent to me at the same time.

Apart from this, a larger quantity of crude sodium uranate was supposed to be treated to obtain uranium oxide,

October 20, 1941

and three (3) precipitations with ammonium hydroxide were supposed to be carried out on this sample instead of one. Also you were supposed to use hydrochloric acid as a solvent rather than sulphuric acid in processing the crude sodium uranate. The resulting uranium oxide was to be leeched with hydrochloric acid three (3) times as specified above, and a ten-pound (10-1b.) sample of the final product was supposed to go to Dr. Rodden with a covering letter of which you were to send me a carbon copy. Please send me a telegram letting me know if this checks with the notes which you made when you were in New York. As to the quantity of the crudes to be treated, you will have a telegram from Mr. French tomorrow as soon as we get a chance to discuss this matter.

Sincerely yours,

(Leo Szilard)

LS: MEB

CC: Dr. Rodden

(L. Szilard)
Columbia University
inthe Cityof New York

DEPARTMENT OF PHYSICS



Mr. Marcel Pochon Eldorado Gold Mines, Ltd. Port Hope Ontario Canada