तार : "नेटफिलेन" TELEGRAMS : NATPHYLAB फोन : ४८७१६१ (३ल.), ४८७६७३ PHONES : 587161, (3L.), 587673



NATIONAL PHYSICAL LABORATORY

राष्ट्रीय भौतिक अनुसंधान शाला Hillside Road, NEW DELHI-110012. हिलसाइड रोड, नई दिल्ली-११००१२

संदर्भ Ref. No.

AM/MW/285/75

fala Dated. February 12, 1975

Dr. B.K. Agarwala, Head, Division of Mechanics

Dear Professor Tracy Hall,

Thank you for your letter dated January 23 detailing the equipment, spares and materials that you have enclosed in the three pallets. I am sure the pallets will be strong enough to stand the rigours of international transportation. We have requested the UNDP to arrange airlifting the pallets to New Delhi, since there is a regular aircargo service between the major cities of the United States and New Delhi. I am sure Mr. Paradis is in contact with you on this.

You will kindly recall that a 2-week visit from you to the National Physical Laboratory to erect and commission the press forms a part of the contract that the UNDP have given to H. Tracy Hall Inc. As soon as the press has been received and power lines etc. have been laid out I will inform the UNDP and you to fix a suitable date for your visit.

We are providing a room of size 16 ft. x 25 ft. x 12 ft. high to house the press. The room will be partitioned into two parts with a 1 inch thick plywood partition with a perspex window. A floor area of size 6 ft. x 6 ft. will have a 6 inch thick concrete to take the load of the press. The room will have a door 6 ft. wide and 8 ft. high to enable the pallets to be pushed in.

We are providing two electric power points, one 415 volts, 25 amperes, 3 phase for the hydraulic pump and the other 220 volts, 25 amp., 3 phase for the heater wire. I hope these arrangements will be adequate. I shall be grateful to have a line in confirmation so that nothing is left to chance. Are there any additional facilities that we shall need?

During discussions at Provo you had given me drawings of the tungsten carbide anvil, spacer and back-up piece for the 200 ton press. During rapid movements within the United States I somehow misplaced these. It will be very kind of you if you could let me have another copy of the drawings of these three pieces. We have in India 3 firms which have shown interest in making these

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> রিখি Dated.....

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pieces. I want to get these fabricated before you arrive here so that you are able to judge their quality in actual operation. Since tungsten carbide will have to be replaced very often, it is important to investigate local sources of supply.

During your two week stay here we want to erect and commission the press and want to train our boys on its operation. We would also want to press 100 cubes to make diamond. You had told me that one run could give about $\frac{1}{2}$ carat of diamond so that 100 cubes could yield about 50 carats. It will be a great morale booster for us to be able to separate this quantity and give it to the local industry for trials. I hope it will be possible for you to assist us in this. If you could give me a list I could, in the meantime, collect the chemicals and other materials needed for this separation.

There is an interest in India in procuring production type equipment, either cubic or belt type which, in your opinion, would be able to produce about 600,000 carats per year. During your stay here we would want to get from you prices of these equipments and make a small project report for the benefit of the Indian industry. I would request you to bring the relevant data to assist us in doing this. Lastly I would remind you of your promise to deliver 3 lectures on various aspects of your high pressure work.

My wife joins me in sending our respects to Mrs. Tracy Hall.

With kind regards,

Yours sincerely,

(B.K. Agarwala)

H. Tracy Hall Inc., P.O. Box 7533, University Station, Provo, Utah 84601

(U.S.A.)

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