AFFAIRS, MINISTER OF INFORMATION AND BROADCASTING AND MINISTER OF SPACE (SHRIMATI INDIRA GANDHI): (a) Yes, Sir.

- (b) It is difficult to identify the effect on the project schedule that can be attributed to the drlay in the delivery of Calandria alone.
- (c) Efforts are being made to expedite fabrication of the Calandria so that there is no further delay in its delivery. The progress of the work is being constantly reviewed and kept under watch by the engineers of the Department.

Underground Nuclear Explosion

562. SHRI VISHWANATH PRATAP SINGH: Will the Minister of ATOMIC ENERGY be pleased to state:

- (a) whether the Atomic Energy Commission has made any concrete progress in the technology of underground nuclear explosions beyond mere theoretical studies;
- (b) whether deep-drillings have been undertaken in various parts of the country to locate suitable sites for underground nuclear explosions; and
- (c) if not, when the work for actually exploring suitable sites for underground nuclear tests will be started?

THF PRIME MINISTER, MINISTER OF ATOMIC ENERGY, MINISTER OF ELECTRONICS, MINISTER OF HOME AFFAIRS, MINISTER OF INFORMATION AND BROADCASTING AND MINISTER OF SPACE (SHRIMATI INDIRA GANDHI): (a) The Atomic Energy Commission is constantly reviewing the progress in the technology of underground nuclear explosion both from theoretical and experimental angles.

(b) and (c). The economic value of such underground explosions is being studied with respect to available information in various parts of the country. Its possible effect on the environmental and ecological condition is also being studied. It is only after satisfactory answers to all these problems are available that the question of actual underground tests for peaceful purposes can be undertaken.

Modification in Tarapur Atomic Plant

563. SHRI VISHWANATH PRATAP SINGH: Will the Minister of ATOMIC

ENERGY be pleased to state:

- (a) whether in the light of the recent breakdown in the First Unit of Tarapur Atomic Plant, necessary modification have been carried out in both the units at Tarapur;
- (b) if so, the cost of these modifications; and
- (c) whether similar changes are also necessitated in the designs of plants at Rana Pratap Sagar and Kalpakkam?

THE PRIME MINISTER, MINISTER OF ATOMIC ENERGY, MINISTER OF ELECTRONICS, MINISTER OF HOME AFFAIRS, MINISTER OF INFORMATION AND BROADCASTING AND MINISTER OF SPACE (SHRIMATI INDIRA GANDHI): (a) Yes, Sir.

- (b) An expenditure of Rs. 1.83 lakhs has been incurred in carrying out these modifications.
- (c) As the reactor system of the Ranapratap Sagar and Kalpakkam Plants is quite different from that of the Tarapur Plant, the question of carrying out similar changes in these plants does not arise.

Turbo set for fast Breeder Test Reactor At Kalpakkam

564. SHRI VISWANATH PRATAP SINGH: Will the Minister of ATOMIC ENERGY be pleased to state:

- (a) whether the Heavy Electricals Limited, Bhopal have accepted the order placed with them by the Department of Atomic Energy for the turbo-set required for the Fast Breeder Test Reactor to be built at Kalpakam; and
 - (b) it not, the reasons for the delay?

THE PRIME MINISTER, MINISTER OF ATOMIC ENERGY, MINISTER OF ELECTRONICS, MINISTER OF HOME AFFAIRS, MINISTER OF INFORMATOIN AND BROADCASTING AND MINISTER SPACE. OF (SHRIMATI INDIRA GANDHI): (a) and (b). The Heavy Electrical Limited, Bhopal have indicated an interest in developing a Turbo-set to suit the requirements of the Fast Breeder Test Reactor with reference to the overall draft specifications forwarded to them. However, the design of the first stage of the Turbo-set required for the Test Reactor is related to that of large 500 MW turbines. The matter is, therefore,